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# ACADEMIC CALENDAR, 1978-79 <br> FLORIDA INTERNATIONAL UNIVERSITY 

## FALL QUARTER 1978

July 5 $\qquad$ Last Day for Receipt of Applications for Foreign Students Applying from out of the Country for Admission to the Fall Quarter
July 24-28
Official Registration Period for the Fall Quarter
September 4
Labor Day Holiday (University Closed)
September 5 ................ Last Day for Receipt of Applications for Regular Admission to Fall Quarter
September 25
Registration for New and Special Students
September 26 Classes Begin
October 2.
Last Day to Complete Late Registration Last Day of Official Drop and Add Period Last Day to Drop Courses or Withdraw from the University Without Incurring a Financial Liability Last Day to Pay Fees Without a $\$ 25.00$ Late Fee Last Day to Apply for Fall Quarter Graduation October 16 Last Day to Pay Fees to Avoid Cancellation of Enrollment Last Day to Drop a Course with a Grade of DR Last Day to Withdraw from the University with WI Grade
November 6-9 \& 13
Official Registration Period for the Winter Quarter
November 10 ................. Veterans Day (University Closed)
November $13 \ldots \ldots . . . . . . . .$. Last Day to Reinstate Cancelled Enrollments
(\$25.00 Reinstatement Fee)
November 23-24 ........... Thanksgiving Holiday (University Closed)
December 15 $\qquad$
December 16
Classes End
December 19 ................. All Grades Due in Records Office by 12:00 Noon
December 25
Christmas Holiday (University Closed)

## WINTER QUARTER 1979

| October 16. | Last Day for Receipt of Applications for Foreign Students Applying from out of the Country for Admission to the Winter Quarter |
| :---: | :---: |
| December 15 | Last Day for Receipt of Applications for Regular Admission to Winter Quarter |
| Januar | Registration for New and Special Students |
| January | Classes Begin |
| January 9 | Last Day to Complete Late Registration |
|  | Last Day of Official Drop and Add Period |
|  | Last Day to Drop Courses or Withdraw from the University Without Incurring a Financial Liability Last Day to Pay Fees Without a $\$ 25.00$ Late Fee |
| January 23 | Last Day to Apply for Winter Quarter Graduation |
| January 30 | Last Day to Pay Fees to Avoid Cancellation of Enrollment |
| February 12-16 | Official Registration Period for the Spring Quarter |
| February 13. | Last Day to Drop a Course With a Grade of DR Last Day to Withdraw from the University with WI Grade |
| February 20. | Last Day to Reinstate Cancelled Enrollments ( $\$ 25.00$ Reinstatement Fee) |
| March 16 | Classes End |
| March 20.... | All Grades Due in Records Office by 12:00 Noon |




## the state university system of florida

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Catalog Editor:SHARON GOTTLIEBF.I.U. Academic Services

## GENERAL INFORMATION

## GOALS

Florida International University, a member institution of the State University System of Florida. offers upper level and graduate programs designed to achieve three goals:

Education of Students - To provide a university education for qualified students which (a) prepares them for useful careers in education, social service, business, industry, and the protessions: (b) furnishes them with the opportunity to become effective members of the society; and (c) offers them an appreciation of their relationships to their cultural, aesthetic and technological environments.
Service to the Community - To serve the greater community, with a primary emphasis on serving the Greater Miami and South Florida area, in a manner which enhances the metropolitan area's capability to meet the ecological, cultural, social and urban challenges which it faces.
Greater International Understanding - To become a major international education center with a primary emphasis on creating greater mutual understanding among the Americas and throughout the world.

## HISTORY

Florida International University was established by the Florida State Legislature on June 22. 1965. On July 11, 1969, the Florida Board of Regents appointed the first president, Charles E. Perry. On September 19, 1972, classes opened with an initial enrollment of 5,667 undergraduate and graduate students. The enrollment grew to nearly 11,000 students in 1975-76.

Early in 1973, the Inter-American Center Authority deeded a tract of land on the Interama site to the Board of Regents for a second campus of Florida International University. Additional land was provided in 1974, and the University's first building on that site was completed during 1976.

## CAMPUSES

The University currently has one major campus location in Southwest Dade County with a second major campus in North Miami.

The Tamiami Campus is located 10 miles west of downtown Miami on the Tamiami Trail (SW Eighth Street) between SW 107 and 117 Avenues. It is bounded on the west by the Florida Turnpike. The North Miami Campus is located at the northern tip of Biscayne Bay, just east of Biscayne Boulevard between NE 135 and 151 Streets. Both campuses are operated under a central administrative plan.

As student needs develop and resources become available, academic programs will be offered on one or both campuses. Students will be able to complete all degree requirements on the campus of their academic major program.

## BUILDING PROGRAM

## Florida International University, Tamiami Campus

The Tamiami Campus is located on a 344 acre site in west central Dade County. Since 1970, six major buildings have been constructed at a cost of $\$ 38$ million. The campus building plan includes several other structures to accommodate growth needs fo 15,000 students.

The campus plan is designed as an interactive complex of facilities connected by internal courts for pedestrian access. The complex is surrounded by a natural buffer of lakes and green areas to provide passive areas for study and relaxation.

Primera Casa, the first major building of the Tamiami Campus, opened in 1972. Its five floors house classrooms, laboratories, computer facilities, and administrative offices.

Deuxieme Maison, the second building, opened early in 1973. The four-story structure houses classrooms, lecture-theatres, academic program and faculty offices.

University House accommodates student affairs offices, recreation and lounge areas, cafeteria, a bookstore, an international conference theatre, and a classroom-auditorium seatıng 200 persons. The building was opened early in 1974.

Viertes Haus, a three-story structure opened early in 1975, houses technology and fine arts laboratories, the experimental theatre, and media production facilities. The central utility plant, which serves the entire campus, was constructed adjacent to Viertes Haus and opened at the same time.

Athenaeum, which houses the libray and the film library of the media center, opened in the Fall of 1975. This structure also includes a divisible auditorium seating 540 persons for lectures or performances.

Owa Ehan, the sixth building, was completed in Fall 1977. This three story structure houses laboratories, faculty offices, classrooms, and specialized facilities for physical sciences, biological sciences, health sciences, and hotel and food services.

The Campus, prior to 1970, was the site of the old Tamiami Airport. The former observation tower was remodeled and is presently the location of the campus information center. The former hangars were remodeled for offices, laboratories and recreation facilities on the west part of the campus, where outdoor recreation fields are also located.

## Florida International University, North Miami Campus

Florida International University's North Miami Campus is located on a 106 acre site in North Dade County on Biscayne Bay. The campus development plan includes structures to accommodate growth needs for 15,000 students.

Trade Center Building, the first building on the campus, was purchased from the InterAmerican Center Authority and remodeled for University use in 1976. The three-story structure includes the library, media services, student affairs, bookstore, computer center, faculty offices, classrooms, and campus administrative offices.

Academic Building One, scheduled to be completed in the spring of 1979 will house classrooms, faculty offices, admissions and registration offices.

Student Affairs Building, scheduled to be completed by Fall of 1979, will include student activities offices, cafeteria, bookstore, student affairs offices, recreational space, a large lecture hall, and classrooms.

Academic Building Two, now in planning stages, will be a laboratory/classroom and faculty office complex, including some science and technology facilities.

Future academic buildings, a library building, an auditorium, and a major conference center will be completed as resources become available.


## GENERAL ACADEMIC INFORMATION

Florida International University ofters a variety of academic programs and courses at the bachelor's and master's degree levels, all designed to respond to the changing needs of the growing metropolitan area of Dade County and South Florida. Upper level bachelor's programs and courses are offered in the College of Arts and Sciences and the five professional schools - Business and Organizational Sciences, Education, Health and Social Services, Hospitality Management, and Technology. Graduate study at the master's level is available in the Schools of Business and Organizational Sciences, Education, Health and Social Services. Hospitality Management and Technology.

NOTE - The programs, policies, requirements and regulations published in this catalog are continually subject to review, in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes in programs, policies, requirements, and regulations may be made without advance notice.

## ACCREDITATION AND MEMBERSHIPS

All academic programs of Florida international University are approved by the State Board of Education and the Board of Regents of Florida.

The University is an accredited member of the Southern Association of Colleges and Schools. The professional programs of the respective schools of the University are accredited or approved by the appropriate professional associations, or are making satisfactory progress toward full professional accreditation or approval.

The University is also an affiliate member of the Association of Upper Level Colleges and Universities, the American Association of State Colleges and Universities, the Florida Association of Colleges and Universities, the Association of Caribbean Universities and Research Institutes, the American Association of Community and Junior Colleges, the Union of Experimenting Colleges and Universities, and numerous other educational and professional associations. The following agencies have accredited professional programs at Florida International University:

American Dietetics Association
American Physical Therapy Association
American Occupational Therapy Association
American Medical Association
Engineers Council for Professional Development
National Accreditation Agency for Clinical Lab Sciences
The American Society of Clinical Pathologists Council on Social Work Education.

## SOUTHEAST FLORIDA EDUCATIONAL CONSORTIUM

Florida International University, Broward Community College, and Miami-Dade Community College are charter members of the Southeast Florida Educational Consortium established in 1977. The organization links the member institutions in planning, maintaining, and evaluating cooperative efforts in academic programs, student services, and administrative support services. The overall objectives of the Consortium are to:

1) Increase and improve educational opportunities.
2) Ensure smooth transition from the community college to the university.
3) Provide easy access to institutional services for students and faculty.
4) Effectively utilize human and fiscal resources.

The Office of the Consortium is located at Tamiami Trail at S.W. 107 Avenue, Miami, Florida 33199.

Descriptions of specific cooperative arrangements between the Consortium campuses and student/faculty procedures - are given in the appropriate sections of this Catalog.

## ACADEMIC PROGRAMS

## ACADEMIC MAJORS LEADING TO THE BACHELOR'S DEGREE

## College of Arts and Sciences

Anthropology

- Art
- Bıological Sciences
*Chemistry
- ${ }^{-}$Computer Science Earth Sciences Economics
*English
Environmental Studies
*French
*History
**Humanities
**International Relations

Liberal Studies

- Mathematics
*Music
Philosophy
Physics
Political Sciences
"Psychology
Religious Studies
*Sociology
"Spanish
Statistics
Theatre
*NOTE: In accordance with University regulations for two majors or two degrees (see page 18), students in these programs may request admission into the programs of the School of Education leading to teacher certification in the corresponding subject matter areas. To do so, they must obtain the approval of their college major advisor and of the Chairperson of the appropriate department in the School of Education.
**NOTE: One of the initial academic major programs to be offered at the North Miami Campus.


## School of Business and Organizational Sciences*

Accounting
Finance
Insurance
International Business
Management
Management Information Systems.

Marketing
Personnel Management
Public Administration
Real Estate
Transportation

## School of Education

*Art

- Biological Sciences

Business and Office Education
Elementary Education
Emotional Disturbance,
*English
Health Education
Health Occupations Education

- History
**Home Economics
Industrial Arts
*Mathematics

Metal Retardation
*French
*German
*Spanish
*Music
Physical Education (1-12)
***Physical Sciences
***Parks and Recreation
*Social Studies
Specific Learning Disabilities
Technical Education
Vocational Industrial Education

Remark: The following programs are the initital academic majors from the School of Education to be offered at the North Miami campus: emotional disturbance, mental retardation, special learning disabilities, elementary education and early childhood education.
*NOTE: In accordance with University regulations for two majors or two degrees (see page 13), students in these programs may request admission into the programs of the College of Arts and Sciences leading to the discipline majors in the corresponding subject matter areas. To do so, they must obtain the approval of their School major advisor and of the Chairperson of the appropriate college department.
"NOTE: Interdisciplinary program offered by the Schools of Education and Technology.
**NOTE: Does not lead to teacher certification.

## School of Health and Social Services

\author{

- Criminal Justice <br> Dietetics and Nutrition
}

Occupational Therapy

## School of Hospitality Management

General Hospitality Management
Hotel-Motel Management
International Hotel Management
Restaurant and Food Service Management

Tourism and Travel Management Condominium/Cooperative and Apartment Management

## School of Technology

Architectural Technology
Civil Engineering Technology
Communications Technology
Construction Engineering Technology
Construction Management
Electrical Engineering Technology

Environmental \& Urban Systems
Home Economics
Industrial Technology
Interior Design
Mechanical Engineering
Technology

## ACADEMIC MAJORS LEADING TO THE MASTER'S DEGREE

College of Arts and Sciences*

Chemistry (offered jointly with FAU) Community Psychology
Environmental and Urban Systems (offered jointly with School of Technology)

Mathematical Sciences
Physics (offered jointly with FAU)
Psychology (offered jointly with FAU)

## School of Business and Organizational Sciences*

Business Administration
Public Administration
Management: concentrations in Real Estate Accounting Health Care Management Finance

International Business
*NOTE: At the time this catalogue went to press, no final decision had been made as to whether full undergraduate programs, graduate programs, or both will be offered at the North Miami Campus. It may be necessary for students to take some or all of their required coursework at the Tamiami Campus.

## School of Education*

Curriculum and Instruction: concentrations in
**Early Childhood Education
**Elementary Education
Reading
Art
Science Education
English
Adult Education, General
Health Education Home Economics Education
Psycho-Educational Services: concentrations in
**Emotional Disturbance
**Mental Retardation
**Specific Learning Disabilities

IIndustrial Arts
Mathematics
Music
Physical Education
Parks and Recreation Administration
Social Studies
Technical Education
Vocational Industrial Education

Counselor Education
School Psychology

Administration and Supervision: concentrations in Administration of Adult Education Administration of Vocational Education Elementary School Administration and Supervision

Secondary School Administration and Supervision
Educational Administration and Supervision, General
*Programs meet Rank II certification requirements.
**One of the initial academic major programs to be offered at Florida International University At North Miami.

## School of Health and Social Services

Criminal Justice
Dietetics and Nutrition

## School of Hospitality Management

Hotel and Food Service Management

## School of Technology

Environmental \& Urban Systems

## ACADEMIC DEGREES

## College of Arts and Sciences <br> School of Health and Social Services

Bachelor of Arts
Bachelor of Fine Arts
Bachelor of Science
Bachelor of Sciences Master of Science in Criminal Justice Master of Science in Dietetics
Master of Science in Community Psychology
Master of Science in Mathematical Sciences

## School of Hospitality Management

Bachelor of Science Master of Science in Hotel and Food Service Management

## School of Business and Organizational Sciences

Bachelor of Business Administration Bachelor of Public Administration Master in Business Administration Master of International Business Master of Science in Management

## School of Education

Bachelor of Science
Master of Science

## School of Technology

Bachelor of Science Bachelor of Technology Master of Science

## School of Independent Studies

Bachelor of Arts
Bachelor of Fine Arts
Bachelor of Science
Bachelor of Business Administration
Bachelor of Technology

## NORTH MIAMI CAMPUS ACADEMIC PROGRAM

The second major campus of the University opened in June 1977. The academic major programs listed below will be offered at the North Miami Campus during the 1978-79 academic year with sufficient courses planned to be scheduled at the North Miami Campus to satisfy full degree requirements. Selected courses from academic majors, other than those
listed, and many electives will be offered and may be taken in partial fulfillment of degree requirements. Students are advised to review the quarterly course listing to determine if desired subjects are offered at North Miami.

The degree requirements and other academic rules and regulations apply equally to both campuses of the University. Those interested in programs at either location should consult the requirements listed elsewhere in this catalog or see an academic advisor in the appropriate department or division.

The course offerings for each academic quarter are listed in the course schedule published prior to the registration period.

| College/School | Level | Major Program |
| :---: | :---: | :---: |
| School of Business and Organizational Sciences | Undergraduate | Accounting |
|  |  | Finance |
|  |  | Insurance |
|  |  | Management |
|  |  | Marketing |
|  | Graduate | Master of Business Administration |
|  |  | Master in Management Accounting |
|  |  | Master in Public Administration |
| School of Education | Undergraduate | Emotional Disturbance |
|  |  | Mental Retardation |
|  |  | Specific Learning Disabilities |
|  |  | Elementary Education |
|  | Graduate | Emotional Disturbance |
|  |  | Mental Retardation |
|  |  | Specific Learning Disabilities |
|  |  | Elementary Education |
|  |  | Early Childhood Education |
| School of Health and Social Services | Undergraduate | Criminal Justice |
|  |  | Social Work |
|  |  | *Health Science |
|  |  | (Consult your academic advisor |
|  |  | regarding course offerings.) |
| College of Arts and Sciences | Undergraduate | Humanities |
|  |  | Psychology |
|  |  | International Relations (minor in Political Science) |
|  |  | Computer Science |

## UNIVERSITY OUTREACH

## State University System External Degree Program

Many of the undergraduate majors offered by the College of Arts and Sciences, the School of Business and Organizational Services, the School of Health and Social Services, the School of Hospitality Management and the School of Technology are offered through the State University System External Degree Program.

Consult the academic program in which you are interested to determine if it is also offered through the External Degree Program.
NOTE: In order to be admitted to the External Degree Program, a student must first be admissable to the University in a regular degree program.

## Division of Continuing Education and Special Programs

A student can earn credit toward the bachelor's degree or master's degree in courses and programs offered through the Department of Off-Campus and Weekend Credit Courses.

# CERTIFICATE PROGRAMS AT FLORIDA INTERNATIONAL UNIVERSITY 

Certificate Programs at FIU are combinations of courses with a common base or interest, selected from one or more academic disciplines and so arranged as to form an area of academic concentration. Two types of certificates are awarded by the College or Schools.

Academic Certificate - awarded with the bachelor's degree; or, upon completion of an approved area of concentration, to a student already possessing a bachelor's degree. This certificate is interdisciplinary in nature.

Professional Certificate - awarded to a student upon completion of an approved area of concentration. This certificate need not be interdisciplinary in nature or associated with the bachelor's degree.

## CERTIFICATE PROGRAMS

Banking Certificate Program<br>Caribbean-Latin American Studies Certificate Program<br>Consumer Affairs Certificate Program<br>Emergency Medical Services Certificate Program<br>Ethnic Studies Certificate Programs: Black, Jewish, Cuban, Comparative<br>Heating, Ventilating and Air Conditioning Design Certificate Program<br>Industrial Safety Certificate Program<br>Insurance Certificate Program<br>Linguistics Studies Certificate Program<br>Management Information Systems Certificate Program<br>Marketing Certificate<br>Personnel Administration Certificate Program<br>Real Estate and Urban Development Certificate Program<br>Transportation Management Certificate Program

## BANKING CERTIFICATE PROGRAM

The Certificate in Banking core program consists of four undergraduate/graduate finance courses representing approximately 200 contact hours between instructors and participants. Participants enrolled in the certificate program may elect to take each course for a grade or on a credit only basis. Either undergraduate or graduate credit may be awarded to those students enrolled for a grade who successfully fulfill the course requirements. Upon successful completion of the four course sequence, a certificate signed by the Dean of the School of Business and Organizational Sciences will be awarded.

The program should be of interest to persons currently employed in banking and who wish to sharpen their knowledge and skills, management track personnel, individuals who sell bank services and individuals (although not currently employed in banking) who desire a career in bank management. The program has been designed by the Florida International University Finance and International Business Department in cooperation with several Florida commercial banks.

The program has qualified for tuition reimbursement by many of the participating institutions. Prospective participants should see their personnel officer or training director for additional information concerning tuition reimbursement.

The program goals include: acquainting the participant with the investment, financing, and other policy decisions within the scope of the corporate finance officer's authority structure; acquainting the participant with the functioning of the authority structure; acquainting the participant with the function of the American capital market and the institutions which service these markets; surveying commercial bank management techniques and methods of operation (emphasis is placed on the goals of the commercial bank and the methods of obtaining these goals): and to develop within the participant the ability to systematize the business loan evaluation process such that a sound rational credit-loan decision can be made.

## CARIBBEAN-LATIN AMERICAN STUDIES CERTIFICATE PROGRAM

Caribbean and Latin American Studies at Florida International University represents one way in which the University fulfills its commitment to furthering international understanding The Caribbean-Latin American Studies Certificate Program encourages students to take an interdisciplinary approach to the study of the Caribbean and Latin America. The Certificate is awarded to both degree and non-degree students who have successfully completed the Certificate requirements. For students pursuing a Bachelors degree, the Certificate Program should be understood as a complement to the students' regular, major area or discipline of study. For non-degree students, the Certificate represents one way in which a fuller, more complete understanding of the Caribbean and Latin America can be gained without pursuing a full course of study at the University.

## CONSUMER AFFAIRS CERTIFICATE PROGRAM

The certificate program in consumer affairs is intended to provide a sound educational base for those dealing with consumer affairs matters as buyers or sellers. The courses leading to the certificate can serve those pursuing careers in consumer affairs, and provide personal benefit to individuals in their roles as consumers.

The certificate program is intended to provide business, government, industry, and labor with a resource for educating selected personnel in a broad range of subject matter related to consumer affairs.

## EMERGENCY MEDICAL SERVICES CERTIFICATE PROGRAM

The objective of the program is to train managers of EMS systems (such as Emergency Departments in hospitals, fire rescue squads and coast guard), to manage efficient and effective EMS systems. In addition, the program is designed to help planners, coordinators and evaluators in local, regional and state level EMS systems to make better decisions in an environment that is rapidly changing.

The program is oriented to those people who are already in the field of emergency medical services, with the intention of meeting the individual needs of these trainees, considering their expertise, areas of responsibility and time available for training. The program will educate them so that they are better prepared to provide expertise either in the developmental or operational phases of local, regional and state EMS systems.

## ETHNIC STUDIES CERTIFICATE PROGRAMS: BLACK, JEWISH, CUBAN AND COMPARATIVE

The College of Arts and Sciences offers the student programs in ethnic studies in recognition of the place ethnic studies enjoys in social sciences and humanities and of its importance in today's world. The programs seek to establish a proper balance between academic goals and objectives and the ongoing concerns of the University's local and international constituencies. The programs address four specialized areas: Black studies, Jewish studies, Cuban studies, and comparative studies.

Specialized courses in Black studies include: Afro-American Anthropology, Area Studies, Social Conflict in Multi-Ethnic Societies, Regional Literature in English, Special Topics, Major American Literary Figures, Individuals, and History and Evolution of Jazz.

Specialized courses in Jewish studies include: Political Urban Jewish Leadership, International Relations of the Middle East, Population and Geography of the Middle East, and the Prophets.

Specialized courses in Cuban studies include: Cuban History, Latin American and Caribbean Social Structures, Third World Theory, Genre Studies (with reference to Cuban literature), The Economic Development of Cuba, and International Relations of the Caribbean.

Core courses/comparative studies include: Minorities, Ethnic Politics, Ethnicity and Nationality, Economics of Race and Sex Discrimination, and Attitudes and Ethnicity.

## HEATING, VENTILATING AND AIR CONDITIONING DESIGN CERTIFICATE PROGRAM

The purpose of this professional certificate program is to produce a learning experience that will enhance the design capabilities of professionals in the field. Emphasis will include the engineering science background as well as the practical applications of systems design.

## INDUSTRIAL SAFETY CERTIFICATE PROGRAM

The objectives of the professional certificate program in industrial safety is to present an integrated learning experience that will provide the student with a minimum level of expertise in the specialized area of Occupational Safety. Particular emphasis will be placed on application, interpretation and administration of the Federal Occupational Safety and Health Act and other regulations in an industrial setting. The Program is intended to provide skills which will be directly applied in industry.

## INSURANCE CERTIFICATE PROGRAM

The certificate program in protessional insurance accomplishment is designed to enable individuals in, or wishing to enter, the insurance industry to obtain recognition for their attainments in insurance education.

The courses leading to the certificate may be taken by both degree-seeking students as part of their regular programs, or by special non-degree-seeking students who may be seeking professional recognition and qualifications.

The Certificate Program requires participants to obtain 30 quarter hours, or six five-credit hour classes, in senior (4000) level insurance courses. The insurance Certificate requires participants to take five required courses and one elective course.

## LINGUISTICS STUDIES CERTIFICATE PROGRAM

While the University does not offer an undergraduate degree in linguistics studies, it does provide a certificate acknowledging that a student has demonstrated competence in course work pertaining to the study of linguistics. This certificate is designed to meet the needs of those who have a general interest in linguistics studies, as well as those for whom work in linguistics would assist in career planning or advancement.

## MANAGEMENT INFORMATION SYSTEMS CERTIFICATE PROGRAM

This program is designed as a three course sequence for systems professionals and users heavily involved in information systems development activity. These courses may be taken as a part of a regular degree program, or by special students not pursuing a formal degree. The purpose of the program is to provide advanced study to complement the work experience of practitioners who deal with information systems problems on a regular basis.

## MARKETING CERTIFICATE

The Certificate in Marketing Program is open to both degree and non-degree seeking students interested in acquiring knowledge and skills in Marketing and documentary evidence of this accomplishment. The Certificate program is aimed specifically at majors throughout the University, particularly those students in the College of Arts and Sciences and the Professional Schools, and at individuals currenty working in the business world. The Certificate program seeks to enhance individual capabilities for the discharge of responsibilities at a high performance level while giving a measure of professional recognition for the achievement of significant competence in the field. The program is not open to marketing majors.

The Certificate Program is comprised of a set of six five-credit hour undergraduate marketing courses - one introductory course at the junior (3000) level, the prerequisite for all the other courses in the program, and five at the senior (4000) level.

## PERSONNEL ADMINISTRATION CERTIFICATE PROGRAM

The objective of this program is to provide training in advanced personnel management techniques and methods to personnel professionals who do not necessarily wish to seek a
degree. The program is aimed at developing immediately applicable skills in individuals who are assumed to already have adequate foundation in the concepts and role of the personnel management function. A certificate of completion signed by the dean of the School will be awarded to any student who completes the program of four five-credit hour courses ( 20 hours total) in the personnel management area of concentration at the graduate level.

## REAL ESTATE AND REGIONAL DEVELOPMENT CERTIFICATE PROGRAM

In order to provide real estate professionals with an opportunity to do advanced University work in their area of specialization, the Real Estate Institute has initiated a certificate program in real estate. A certificate of completion signed by the Director of the Institute will be awarded to any student who completes a program of six five-credit hour courses ( 30 hours total) in the real estate area of concentration at the upper division or graduate level. The courses will be selected during the orientation course with an advisor following admission.

The certificate program will be conducted at a level equivalent to upper division and graduate work. In order to maintain the integrity of the certificate program a " B " average is required for course work taken, even though it is not part of a regular degree program. Grade " B " level performance is considered above average work. An individual will not be awarded the certificate unless he or she performs at an above average level overall for the six courses in sequence.

This program is designed for individuals who are not necessarily interested in working for a graduate degree, but who desire advanced training in their area of specialization. The series of six courses covers major topics in the real estate industry. The courses cover these topics in depth, from both theoretical and practical viewpoints.

Qualification for the certificate program will be judged on the basis of the competence of the individual in his profession and not on his previous college work or a special examination. An interested professional discusses his background and interests with a faculty advisor, who determines the appropriateness of the certificate program for the individual and the acceptability of his qualifications. Upon acceptance by the advisor, the individual registers for a noncredit two hour orientation course through Continuing Education. The fee for this course is $\$ 25.00$. The student then registers as a special student to satisfy the six course requirment for the certificate.

## TRANSPORTATION MANAGEMENT CERTIFICATE PROGRAM

The Division of Policy, Marketing, and Environment offers a certificate program in transportation management. The program is designed to enable students employed in, or wishing to enter, the transportation industry to obtain recognition for their attainments in transportation education.

The courses leading to the certificate may be taken by both degree-seeking students as part of their regular programs, or by special non-degree seeking students who may wish to obtain professional recognition and qualifications.

The Certificate Program requires participants to obtain 30 quarter hours, on six five-credit hour classes, in senior (4000) level transportation courses, of which 20 hours are required, 10 hours elective

## ADMISSION

## UNDERGRADUATE PROGRAMS

A student who has completed an Associate of Arts degree at a Florida public community college, or has earned 90 quarter hours ( 60 semester hours) of college credit at any other accredited institution at an acceptable performance level, and has completed the general education requirements (or the equivalent) as listed in the Academic Regulations section of the catalog, is eligible for admission to the degree program of his or her choice.

A student who has completed an Associate of Science degree, or has earned 90 quarter hours ( 60 semester hours) of credit at a Florida public community college, and who has com-
pleted at least 40 quarter hours of the 54 quarter hours of general education requirements (or the equivalent) as listed in the Academic Regulations section of the catalog, is elibigle for admission to the degree program of his or her choice.

A student who meets the above admission requirements, but who has not completed the remaining general education course requirements and/or the prerequisite courses for admission to a particular degree program, may complete his or her preparatory work either (a) at a Florida public community college or accredited institution, or (b) in the College and Schools of Florida International University, or (c) by achieving a satisfactory score on the appropriate CLEP examination(s).

The School of Technology normally regards the Associate of Science degree in an appropriate technical discipline as the full equivalent of the first two years ( 90 quarter hours) of the Bachelor of Technology program.

An undergraduate student who has been denied admission to a program of the University for academic reasons may appeal the decision. He or she should contact the Chairperson of the program, then the Dean of the College or School of the program, and finally, if necessary the Vice President for Academic Affairs. An undergraduate student who has been denied admission to the University for other than academic reasons may appeal to the University Registrar.

## GRADUATE PROGRAM

A student seeking admission into a graduate program of the University must meet the minimum standards set forth by the Florida Board of Regents.

A bachelor's degree or equivalent from a regionally accredited university or college.
Advanced degree requirement option.
$A$ " $B$ " or better average in all work attempted while registered as an upper division student seeking the bachelor's degree, OR a total score (quantitative plus verbal) of 1,000 or higher on the Graduate Record Examination or an equivalent score on some other measure specified by the University.
An applicant who does not have a " $B$ " average on his or her upper level work is required to present a score of 1,000 on the Graduate Record Examination (School of Education, School of Health and Social Services, and the School of Hospitality Management) or 450 on the Graduate Management Admission Test - (GMAT) (School of Business and Organizational Sciences). All graduate applicants to the School of Business and Organizational Services regardless of previous grade-point average - are required to submit the appropriate aptitude test scores. For a student applying to the public administration or the health care management programs in the School of Business and Organizational Sciences, the appropriate test is the Graduate Record Examination (GRE) rather than the GMAT.

NOTE: Grades earned at institutions with non-traditional grading systems will be given every consideration at Florida International University. Applicants will be treated equally with students from institutions with traditional grading systems.
It is possible for an applicant who fails to meet these criteria to appeal the admission decision and be considered under the Board of Regents' 10 per cent policy. This policy allows up to 10 per cent of the graduate students admitted for a particular academic year to be admitted as exceptions to the above criteria.

## ADMISSION PROCEDURES

Undergraduate and graduate degree-seeking students may obtain an application for admission, catalog, and other material from the Office of Admissions and Records, Florida Internatıonal University, Tamiami Campus, Tamiami Trail, Miami, Florida 33199, or North Miami Campus, North Miami, Florida, 33181

Completed admission application and all supporting credentials must be on file with the Office of Admissions and Records before a final decision can be made regarding the acceptance of an applicant. The following credentials are required by the Florida Board of Regents for admission:

Application for Admission: A fifteen dollar (\$15) non-refundable application fee must accompany the completed application form. The deadline for accepting applications each quarter is contained in the University Calendar given in the catalog.

Completed Academic Record: Official transcripts must be forwarded to the Office of Admissions and Records by the Registrar of all college-level institutions attended. It is the responsibility of the applicant to initiate requests for necessary transcripts (including final transcripts) from each post-secondary institution attended

NOTE: Transcripts must be received no later than 15 days preceding the first day of class.
Student Health Form: Every student must complete a student health form. The forms will be supplied after a student is admitted to the University.

Non-admitted degree-seeking student applications will be kept on file for one year from the requested date of entry.

Previously enrolled, degree-seeking students who have not attended classes for one year or more will be required to fill out an application for readmission, which can be obtained in the Office of Admissions and Records. (PC-140 - Tamiami Campus and TC-145 - North Miami Campus.)

## REGISTRATION

During each academic quarter, an official registration week is held, during which time all currently enrolled students who anticipate enrolling in the following quarter are expected to register for their courses. The new student will be notified of registration dates at the time he or she is officially notified of admission to the University.

## LATE REGISTRATION FEE

Approximately five weeks after each quarter begins, the official registration week for the next quarter begins. During the one-week registration period, all currently enrolled, degreeseeking students are expected to register. Those who fail to register then, and who subsequently register on Registration Day or thereafter will be assessed a $\$ 25$ late registration fee.

Although new and non-degree-seeking special students are encouraged to register during the official one-week registration period, they are not required to register until Registration Day. Those students who request to register during the first week of classes will be assessed a \$25 late registration fee.

## SPECIAL STUDENT (NON-DEGREE SEEKING) REGISTRATION

The special student calssification is primarily designed for the person who is not interested at the time of registration in working toward a degree at Florida International. The following regulations will apply to a person registered as a special student:

- He or she is not required to meet the usual admission requirements. Such a student is not officially admitted as a regular student and registration as a special student in no way implies future admission as a regular, degree-seeking student.
- He or she must complete a non-degree seeking, special student application at the time of registration.
- Registration for specific classes is on a space-available basis and is determined at the time of registration, on Registration Day, or during Late Registration.
- Special students may not register for 600 level courses during Registration Week, but must wait to register on Registration Day.
- Credit earned will not be counted toward a degree at Florida International unless the student subsequently applies for regular admission and is accepted as an undergraduate or graduate student.
- No more than the following quarter hours earned as a special student may be counted toward a degree:

Graduate Level...................................................................... 15 quarter hours
Undergraduate Level............................................................. 20 quarter hours
The appropriate Dean must approve the acceptance of credit earned as a special student;

- If a change to regular, degree-seeking student status is desired, an appropriate application must be filed in the Office of Admissions and Records;
- Regular rules of scholarship will apply;
- A faculty advisor is not assigned, but academic counseling is available from the academic unit offering the course.
NOTE: A foreign student is not permitted to enroll as a special student. Immigration regulations require a foreign student to be degree-seeking.


## ACADEMIC REGULATIONS

NOTE: Questions concerning the University's academic regulations should be directed first to the student's academic advisor. Subsequent concerns may be directed to the appropriate Dean or the Office of Admissions and Records.

## GENERAL REGULATIONS

## DEGREE REQUIREMENTS

Florida International University will confer the bachelor's degree when the following conditions have been met:

1. Successful completion of a minimum of 180 credit hours.
2. Completion of the last 45 credit hours of coursework at Florida International University.
3. Satisfactory completion of Florida International University's general education requirement.
4. A minimum 2.0 G.P.A. on all coursework completed at Florida International University.
5. Recommendation of the Faculty of the College or School awarding the degree.
6. Certification by the Dean of the College or School concerned that all requirements of the degree being sought have been completed.
Florida International University will confer the master's degree when the following conditions have been met.
7. Successful completion of a minimum of 90 quarter hours for degrees requiring two years of work and 45 quarter hours for those requiring one year of work.
8. A minimum 3.0 G.P.A. on all coursework completed at Florida International University.
9. Recommendation of the faculty of the College/School awarding the degree.
10. Certification by the Dean of the College/School concerned that all requirements of the degree being sought have been completed.
NOTE: Normally, a minimum of 35 quarter hours must be completed at Florida International University for a 45 -quarter-hour program and 75 quarter hours for a 90-quarter-hour program.

## GENERAL EDUCATION REQUIREMENTS

Florida International University requires that all undergraduate students must have completed a general education program prior to graduation. The general education program as presently defined by the Board of Regents consists of 54 quarter hours ( 36 semester hours). Florida International University recognizes the following general education program: 9 quarter hours each in the areas of social science, natural science, English composition and humanities; 4 quarter hours in mathematics, and 14 quarter hours of electives in the above areas. In this connection, the following policies have been established.

- A student who has graduated from a Florida public community college with an Associate in Arts degree shall be considered as having met the general requirements of Florida International University;
- A student who has met the general education requirements of any institution in the State University System of Florida shall be considered as having met the general education requirements of Florida International University;
- A student who has taken his or her freshman and sophomore years in a college other
than a Florida public community college or at an institution in the State University System of Florida may similarly receive credit for such courses shown on his or her transcripts as meeting the general education requirements;
- A student may be admitted before completion of an equivalent general education program, provided such a program can be completed through an inter-institutional registration arrangement with a Florida public community college or through some other arrangement designed to meet individual needs as noted in the section describing undergraduate admission standards.


## STANDARDS OF CONDUCT

Students are subject to federal and state laws and local ordinances as well as regulations prescribed by Florida International University and the Florida Board of Regents. The breach or violation of any of these laws or regulations may result in judicial or disciplinary action.

When a student is involved in an offense resulting in criminal charges, prior to his admission, the circumstances of the case may be reviewed by the appropriate Student Affairs Committee to consider the student's eligibility for admission to the university as well as participation in extracurricular activities.

## CLASSIFICATION OF STUDENTS AND COURSE LOADS

Students are classified by the Office of Admissions and Records as follows:
Junior: Through 134 quarter hours credit.
Senior: 135 or more quarter hours credit, but no baccalaureate degree earned at Florida International University or elsewhere.
Post Baccalaureate: Any student enrolled in graduate-level courses who has earned a bachelor's degree but is not admitted to a graduate degree program.
Graduate: Any student admitted to a graduate program.
Special Student: Any non-degree seeking student enrolled in undergraduate or graduate level courses.

In terms of credit-hour-load, students are classified as full-time according to the following minimum schedule:

|  | Undergraduate <br> Quarter Hours | Graduate <br> Quarter Hours |
| :--- | :---: | :---: |
| Credit-Hour Loads | 10 | 10 |
| Selective Service | 12 | 9 |
| Veterans Benefits (full allowance) | 12 | 7 |
| Veterans Benefits ( $3 / 4$ allowance) | 9 | 5 |
| Veterans Benefits ( $1 / 2$ allowance) | 6 | 10 |
| Foreign Students (F-1 Visa) | 15 |  |

Part-time students are those taking less than the figure indicated. The typical course load for a full-time undergraduate or graduate student is 15 quarter hours. A course load of more than 20 quarter hours must be approved by the student's advisor and dean (or designee). An undergraduate foreign student must carry and satisfactorily complete 15 quarter hours each quarter, and a graduate foreign student must carry and satisfactorily complete 10 quarter hours each quarter to meet the full-time status requirement of the Immigration and Naturalization Service.

## CLASS ATTENDANCE

The University does not require class attendance and does not maintain penalties for non-attendance. Individual faculty may establish attendance criteria in classes where it is necessary for academic reasons. The individual academic units may establish their own attendance policies with the approval of the Vice President for Academic Affairs.

## STUDENT RECORDS

Florida International University assures the confidentiality of student educational records in accordance with State University System rules, state and federal laws including, the Family Educational Rights and Privacy Act of 1974, as amended (commonly called the Buckley

Amendment). Student academic records are maintained, generally, in the Office of the Registrar and in the academic department of the student's major. As a rule, all currently enrolled and former students have the right to review their records to determine the content and accuracy of the records. Parents of dependent students, as defined by the Internal Revenue Code, and who give evidence of the dependent status, have the same rights. Students can generally, for the cost of copying, have copies of any documents in their file. This does not apply to transcripts from other institutions; students may get copies of these from that institution.

## PROGRAM AND COURSE REGULATIONS

## Academic Definitions:

Credit - The term "credit" as used refers to one hour of classwork or the equivalent each week for an entire academic quarter.

Major - An integral part of the bachelor's and master's degree is a major concentration of course work in an approved academic discipline or area. The major areas of study are listed on pages 6-8 of the Catalog. The exact course and credit requirements and prerequisites for each major are outlined in the departmental program areas of the Catalog.

Electives - A student may usually select courses from any academic area to complement his or her major area(s) of study or meet his or her interests, in order to fulfill the credit hour requirements for the bachelor's or master's degree. Prerequisite course requirements should be considered in selecting elective courses.

Minor Program - A Minor Program is an arrangement of courses that enables the student to develop some degree of expertise in one area of study. A minor is associated with the completion of the bachelor's degree, but is not interdisciplinary in nature.

Certificate Program - In the College and Schools of the University, a Certificate Program is a combination of courses with a common base or interest selected from one or more academic disciplines and so arranged as to form an area of academic concentration. Two types of certificates are awarded by the College or Schools:

Academic Certificate - awarded with the bachelor's degree, or upon completion of an approved area of concentration to a student already possessing a bachelor's degree. This cerlificate is interdisciplinary in nature.

Professional Certificate - awarded to a student upon completion of an approved area of concentration. This certificate need not be interdisciplinary in nature or associated with the bachelor's degree.

A Certificate in Continuing Studies is awarded to a person who has attended a conference, seminar, or program sponsored by the Division of Continuing Education and Special Programs.

Two Majors - Any undergraduate student who elects to do so may carry two majors and work to fulfull the requirements of both concurrently. Upon successful completion of the requirements of two majors, a student will be awarded only ONE degree unless a minimum of 45 appropriate quarter hours in addition to the requirements of the first degree have been earned. In cases where the requirements of two majors have been met and only one degree is involved, a notation denoting both majors will be entered on the transcript.

Two Degrees - Two bachelor's degrees may be awarded simultaneously when the following conditions have been met:

1. Requirements for two majors have been completed as certified by the appropriate academic units.
2. A minımum of 45 appropriate quarter hours in addition to the requirements of one degree has been earned.
A graduate from an accredited four-year institution who applies for admission to work lowards a second bachelor's degree must meet the requirements of the major department, which shall include (but are not limited to) a minimum of 45 quarter hours of course work, as well as any other University-wide graduation requirement.

Change of Major - A student may change majors by processing a Request for Change of Major form. The form and directions are available in the Office of Admissions and Records.

## TRANSFER CREDIT

An undergraduate student admitted to the University will receive credit for all previous academic work appropriate to the degree desired in accordance with the Articulation Agreement with Florida public community colleges, the program standards of the academic department or program, and the limitations noted below. Although the actual awarding of transfer credit is made by the Office of Admissions and Records, the final determination regarding applicable transfer credit accepted toward the fulfillment of degree requirements rests with the Dean of the College or School in which the student is enrolled.

## Limitations on Transfer Credit

A student transferring from a four-year college may transfer up to 135 quarter hours ( 90 semester hours), and those transferring from two-year colleges may transfer up to 90 quarter hours ( 60 semester hours) toward a bachelor's degree. In individual cases, at the discretion of the appropriate academic dean, a greater number of credits may be transferred

Normally, the grade of "D" will be accepted for transfer; however, such coursework in the major field is subject to review and approval by the appropriate dean.

Normally. credit from non-accredited institutions will not be accepted; however, such credit. when presented, will be considered on an individual basis by the appropriate College or School.

Credit from military schools will be considered for transfer in accordance with the recommendations of the American Council on Education.

Credit from foreign institutions will be considered on an individual basis. Credit will be granted for all work which is applicable toward the degree being sought.

## ACCELERATION

The academic programs of the University are planned in such a manner that a student may complete some of his or her upper division degree requirements through one or more of the mechanisms listed below. Specific information on the accelerated mechanisms utilized in each academic program is available from the department or program of the student's major.

## College Level Examination Program (CLEP)

The College Level Examination Program is designed to measure knowledge in certain subject matter areas of general education. There are two types of CLEP tests: the General examination and the Subject examination.

Because CLEP credit is regarded as transfer credit, no matter how earned, the maximum transferability of credit under CLEP, both General and Subject examinations combined, is 45 semester (or 67.5 quarter) credits.

Not more than six semester (or nine quarter) hours will be transferred in each of the five areas of the General Examinations (English, humanities, mathematics, natural sciences, social sciences - history).

NOTE: A student who desires additional information on CLEP should contact the Office of Admissions and Records or School and College Relations.

## Departmental Credit by Examination

Departmental credit by examination is available for certain courses. A student who has already gained knowledge of a subject offered at the University and who wishes to take an examination in lieu of taking the course should discuss the matter with his or her academic advisor and with the department offering the course.

Awarding departmental credit by examination is the prerogative of each academic unit. To receive credit by examination, a student must be a regular degree-seeking student and register for the courses in the regular manner.

## CREDIT FOR LIFE/WORK EXPERIENCES

Undergraduate - The awarding of credit for life/work experience is the prerogative of each academic department or program. Only the degree-seeking student is eligible to receive this type of credit. The experiences must be applicable to the degree program of the student,
and should be discussed and appropriately documented at the time the desired program of study is initially discussed and decided with the student's program advisor.

Graduate - Graduate credit, per se, will not normally be awarded for life experience. In cases where a student's life experience would appear to have been sufficient to develop the understanding and skills associated with a course that would otherwise be included in his graduate program of study, he or she will be allowed to register for Independent Study credits and demonstrate competency through development of an appropriate project acceptable to the faculty person who represents that specific area of specialization. Not more than 20 quarter hours of a 45 credit master's degree, nor 30 quarter hours of a 90 credit master's degree, may be so earned. A student wishing to have this policy waived, wholly or in part, may petition the Dean of the academic unit to which he or she has been admitted for special consideration and final responsibility for a decision will rest with that Dean.

## TRAVELING SCHOLAR PROGRAM

The University participates in a traveling scholar program which enables a graduate student to take advantage of special resources available on another campus but not available on his or her own campus, special course offerings, research opportunities, unique laboratories, and library collections. Further information may be obtained from the Dean of the graduate program in which the student is enrolled.

## DROPPING AND ADDING COURSES

The first week of each quarter is the official drop/add week. During this period, a student may add courses, drop courses or withdraw (with no records kept) from the University (with a fee refund.)

Courses officially dropped during the second through the sixth weeks of classes are recorded on the transcript with a symbol of DR (dropped).

## REPEATED COURSES

A student who repeats a course for which credit was not received may have that designation removed from the transcript record by filing a Repeated Course Form with the Office of Admissions and Records. The previous grade will be replaced by an asterisk.

A student may repeat a course as many times as he/she wishes; only the last grade will be recorded on trasncript and calculated in G.P.A.

## FINAL EXAMINATIONS

While the University calendar does not designate specific dates as a final examination period, final course examinations may be given at the discretion of the faculty member teaching the course.

## APPLICATION FOR GRADUATION

Each student who plans to graduate is required to submit to the Office of Admissions and Records an Application for Graduation Form. This form (supplied by the Office of Admissions and Records) must be submitted before the end of the third week of classes of the academic quarter in which graduation is expected. A student turning in the Application for Graduation after the deadline will graduate the following quarter. There is no charge for applying for graduation.

## PREMEDICAL ADVISEMENT

The Premedical Advisement and Evaluation Committee, a committee of the College of Arts and Sciences, advises students interested in entering the health professions and prepares recommendations for students who are applying to health-related professional schools.

Students desiring to enter the health professions are advised to contact the Premedical Advisement and Evaluation Committee at the earliest possible time, preferably before the spring quarter prior to the academic year in which they will apply to professional schools. The office of the Premedical Advisement and Evaluation Committee is in the Department of Physical Sciences, OE 200; 552-2605.

## WITHDRAWAL FROM THE UNIVERSITY

A student who wishes to leave the University during the quarter for any reason whatsoever must officially withdraw through the Office of Admissions and Records.

A student who officially registers for a particular quarter and subsequently decides not to attend (no shows) or to leave during the quarter must officially withdraw from the University through the Office of Admissions and Records. (Dropping all courses is equated to a withdrawal. Therefore, a withdrawal form instead of a drop/add card MUST be completed).

The transcript record of a student who withdraws during the first week of classes will contain NO references to the student being registered that quarter.

The transcript record of a student who officially withdraws after the first week and before the end of the sixth week of classes will contain a WI for each course.

The transcript record of a student who stops attending the University without officially withdrawing will contain a NC grade for each course.

## READMISSION

A degree seeking student once enrolled in the University, but who has not enrolled in any course for one year or more, is eligible for readmission under the regulations operative at the time of readmission. Such a student should contact the Office of Admissions and Records.

## GRADING SYSTEM

Grades
A
B
C
D
F
CR
NC
IN
WI
AU
DR
NR
EM

Definition
Excellent
Good
Average
Poor
Failure
Satisfactory
No Credit
Incomplete
Withdrew from University
Audit
Dropped Course
Grade Not Reported
Examination

Grade Points
Per Credit Hour
4
3
2
1
0
N/A
0
N/A
N/A
N/A
N/A
N/A
N/A

NOTE: All courses for which a student is officially registered at the end of the first week of classes and on which a grade of A, B, C, D, F, or NC is received are calculated in the GPA.

## DEAN'S LIST

Any undergraduate student who earns a quarter average of 3.5 or better on 10 or more hours of course work for which grade points are earned is placed on the Quarter Dean's List. This achievement is noted on the student's quarterly report of grades and permanent academic record.

## ACADEMIC HONORS (UNDERGRADUATE)

To graduate with honors a student must have earned a cumulative GPA between 3.50 3.749 and have received no more than two NCs.

To graduate with high honors a student must have earned a cumulative GPA between 3.75-3.999 and have received no more than one NC.

To graduate with highest honors, a student must have earned a cumulative GPA of 4.0 and have received no NC.

To graduate with the above honors the student must have completed sixty credit hours at Florida International University since the Fall Quarter of 1975.

## ACADEMIC WARNING, PROBATION AND DISMISSAL

WARNING: A student whose cumulative GPA falls below a 2.0 (undergraduate) or 3.0 (graduate) will be placed on WARNING indicating academic difficulty.

PROBATION: A student on WARNING whose cumulative GPA falls below 2.0 (undergraduate) or 3.0 (graduate) will be place on PROBATION indicating serious academic difficulty. The College/School of the student on PROBATION will appropriately communicate conditions which must be met in order to continue to enroll.

DISMISSAL: A student on PROBATION whose cumulative and quarterly GPA falls below a 2.0 (undergraduate) or 3.0 (graduate) will be automatically dismissed from his/her program and the University. The student has ten working days to appeal the dismissal decision. This appeal must be made in writing to the Dean of the College/School in which the student is enrolled. If the student's appeal is denied, his/her dismissal from the University is for a minimum of four quarters. After four quarters, the student may apply for readmission to the University in the same or a different program, or register as a special student.

## CREDIT/NO CREDIT OPTION

The College/Schools may specify particular courses which may be taken for grades of CR/NC only and those which may be taken, at the option of the student, for either a CR/NC or a regular ABCDF grade. A student who decides to take a course that offers a choice of CR/NC grading or ABCDF grading must indicate at the time of course registration which grading option is desired. Once the grading option has been indicated, a student will not be allowed to change his or her mind.

## CHANGE OR CORRECTION OF GRADES

Once submitted, end-of-quarter grades (except incompletes) are final and are subject to change only through a Change of Grade Form to correct an error in computation or transcribing, or where part of the student's work has been unintentionally overlooked. A change-ofgrade form requires the instructor's statement as to the reason for the change, the instructor's signature, and the approval of the appropriate Academic Dean, and must be submitted within one calendar year after the date of the initial end-of-quarter grade.

## GRADE REPORTS

At the end of each quarter, the Office of Admissions and Records provides each registered student a copy of his or her grades.

## INTERNATIONAL ADMISSIONS

## UNDERGRADUATE AND GRADUATE ADMISSION STANDARDS AND PROCEDURES

An international student must meet the regular admission requirements of the University and comply with the following:

Application and Fee: A completed admission application must be received by the University at least 3 months prior to the desired entering date, together with a non-refundable $\$ 15.00$ (U.S. dollars) fee.
Academic Records: Appropriate officl transcripts or certified copies of academic records and their English translations, validated by an official public translator; and all other appropriate credentials must be forwarded to the Office of International Student Admissions.
Proficiency in English: Proficiency in English must be established if the native language is not English. The following are accepted ways to verify proficiency:

- A minimum score of 500 in the Test of English as a Foreign Language (TOEFL). For information write to: the TOEFL program, Box 899, Princeton, New Jersey, 08540, U.S.A.
- The ALIGU Test, (American Language Institute, Georgetown University), Washington, D.C. 20007.
- ELS Language Center certification of satisfactory completion at the 109 level of proficiency. For information write to: ELS Language Centers, 3331 Ocean Park Blvd., Suite 201, Santa Monica, Calif. 90405
- Successful completion of 45 quarter hours ( 30 semester hours) of course work at an American college or university including 9 quarter hours ( 6 semester hours) of English composition.
Declaration and Certification of Finances: A Declaration and Certification of Finances must be completed before the Certificate of Eligibility (Form I-20A) is issued. Upon receipt of application for admission the Declaration and Certification of Finances will be mailed to the applicant.
The University is required by immigration authorities to carefully check the financial resources of each student prior to issuing the Form l-20A. Therefore, it is important that the applying student know the costs of attending the University and have the necessary support funds for the period of enrollment.
Before completing the Declaration and Certification of Finances, review the estimate of institutional costs and living expenses. The total available to the student for the first and/or second academic years must equal the total estimates of institutional costs and living expenses. All questions in the Declaration and Certification of Finances must be accurrately answered to avoid unnecessary delay in processing.
After completing the Declaration and Certification of Finances, return the document to:
Office of International Student Admissions
Florida International University
University House 340
Tamiami Trail
Miami, Florida 33199 U.S.A.
The Declaration and Certification of Finances must be received by the University at least two months prior to the beginning of the quarter for which student expects to register. If the student is residing in the U.S.A., said document is due at least one month before the first day of classes.

Health Insurance: Florida International University requires that all international students purchase health insurance in order to help pay for major medical expenses. The health insurance policy should be kept active as long as the student is enrolled at the University. Information on the most economical plans is available from the Office of International Student Services, University House 340.

Graduate Students: For information about the Graduate Record Examination (GRE) and Graduate Management Admission Test (GMAT), write to Educational Testing Services, Princeton, New Jersey, 08540, U.S.A. Information about test center locations may also be obtained at the American Embassy in the student's home country.

Tuition: An international student is considered a non-resident, and as such will be assessed non-resident fees. As an Undergraduate student, $\$ 772.50$ is the average tuition cost for each quarter (Immigration regulations requires an International student to attend school at least three quarters during an academic year). The average tuition fee is based on 15 credits, which is the minimum required load for an undergraduate international student. For a Graduate student, $\$ 620.00$ is the average tuition cost each quarter. This tuition fee is based on 10 credits per quarter, which is the minimum required load for a graduate international student.

## ANNUAL ESTIMATE OF COST

| Single Student | Undergraduate* | Graduate |
| :--- | ---: | ---: |
| Tuition | $\$ 2,835$ | $\$ 2,480$ |
| Books and Supplies | 220 | 220 |
| Housing and Food | 3,600 | 3,600 |
| Transportation | 750 | 750 |
| Miscellaneous | 595 | 595 |
| Total | $\$ 8,000$ | $\$ 7,645$ |

*Immigration Naturalization Services regulations require that an international student attend school for 3 quarters within one academic year.

NOTE: Opportunities for financial assistance are limited if an international student is not a U.S. citizen
Full-time enrollment: The non-immigrant alien student on an F-1 visa is required by United States Immigration regulations to be enrolled full-time, except for summer session. He or she should make satisfactory progress toward the bachelor's or master's degree program objectives each term. Otherwise the continuation of study on a student visa may be jeopardized. Full-time enrollment for a student on an F-1 visa (student visa) is defined as: enrollment in, and successful comp'etion of, a minimum of 15 quarter hours each quarter (undergraduate) and 10 hours each quarter (graduate).

United States Department of Justice, Immigration and Naturalization Service Law and Regulations:

It is the student's responsibility to comply with all non-immigrant alien requirements as stated under the United States laws under Section 101 (a) (15) (f) (i) of the Immigration and Nationality Act. The University is required to report to the Immigration Office any non-immigrant alien student who:
a. Does not register at the University at the time expected.
b. Does not carry a full course of studies.
c. Terminates attendance.

Granting official Extension of Stay is dependent upon the student's making normal academic progress toward the bachelor's or master's requirements.

Employment: An F-1 visa student may not be employed off campus while attending the University, unless permission has been granted by the U.S. Immigration and Naturalization Service. Normally, employment will not be permitted, especially during the student's first year of enrollment. Only under very special circumstances, because of unexpected conditions or emergencies which arise after the student's arrival, will an international student be recommended for a work permit. Adequate proof must be presented to the international student advisor in order to obtain the necessary authorization. On-campus employment can be authorized by the international student advisor.

NOTE: An international student will not be granted admission to the University until all academic and non-academic requirements have been met, including submission of the Declaration of Certification of Finances. Under no circumstances should a student come to Florida International University without having received the official letter of admission and the l-20A Form.
For further information regarding international student admission, please contact:
Office of International Student Admissions
Florida International University
University House 340
Tamiami Trail
Miami, Florida 33199 U.S.A.
(305) 552-2421

## FEES AND REFUNDS

## FEES

The fees are estaolished by the Board of Regents as approved by the State Legislature. The fee structure for the 1977-78 academic year is as follows:

# FALL, WINTER, SPRING TERMS 

|  | Florida | Non-Florida |
| :--- | :---: | :---: |
|  | Residents | Residents |
| Upper Level Undergraduate Courses | $\$ 16.50$ per qtr. hr. | $\$ 51.50$ per qtr. hr . |
| Graduate Courses | $\$ 22.00$ per qtr. hr | $\$ 62.00$ per qtr. hr. |
| Thesis | $\$ 24.00$ per qtr. hr. | $\$ 64.00$ per qtr. hr. |

## SUMMER TERM

Florida

Residents

Upper Level Undergraduate Courses Graduate Courses Thesis
$\$ 10.50$ per qtr. hr. $\$ 22.00$ per qtr. hr. $\$ 24.00$ per qtr. hr.

Non-Florida Residents
$\$ 45.50$ per qtr. hr
$\$ 62.00$ per qtr. hr
$\$ 64.00$ per qtr. hr

Fees are based on the level of each course attempted. The dates by which fees must be paid for each academic quarter may be obtained from the University Cashier's Office. Current fee information can be obtained from the Cashier's Office.

NOTE: Registration is not complete until fees are paid. Fees are subject to change.

## REFUNDS

A full refund of fees will be made if a student withdraws completely from the University on or before the last day of late registration. A full refund will be made if the University cancels a student's registration on or before the end of the late registration.

After the end of late registration there will be no refund of Registration Fees except in the following cases:

- Death of the student,
- Illness of the student so severe that it prevents completion of the program for which the student is registered. A doctor's certification of this illness is required.
- Involuntary call to military service.
- Extenuating Circumstances.

In the above instances the per hour tee, less $\$ 2.85$ per hour, will be refunded.
No refund will be made under this policy except upon proper application through the cashier's Office.

## PAST DUE STUDENT ACCOUNTS

All student accounts are due and payable at the Cashier's Office, Room 120 Primera Casa, at the time such charges are incurred.

Delinquent accounts will be considered sufficient cause to prohibit registration, graduation, granting of credit, or release of transcript for students. The University is not able to grant credit or time payments for any fees. Financial aid is available for those qualitying from the Office of Financial Aid. A limited number of short term loans are available to individuals who may experience problems in meeting due dates.

## CLASSIFICATION OF STUDENTS FOR TUITION PURPOSES - FLORIDA OR NON-FLORIDA

The policy relating to the classification of students for tuition purposes is defined by the Florida Board of Regents as follows:

## FLORIDA STUDENT DEFINITION

(1) For the purpose of assessing registration and tuition fees, a student shall be classified as a "Florida" or "non-Florida" student.
(a) A "Florida student" is a person who has domicile in and who shall have resided in the state of Florida for at least twelve (12) consecutive months immediately preceding the first day of classes of the academic term in which the student enrolls. In determining residency, the university may require evidence such as voter registration, driver's license, automobile registration, location of bank account, rent receipts or any other relevant materials as evidnce that the applicant has maintained continuous residency. Physical presence for the entire twelve-month period need not be required so long as the conduct of the student, taken in total, manifests an intention to make Florida his or her permanent dwelling place. It such student is a minor, it shall mean that the parent or parents, or legal guardian of the student shall have domicle in and have resided in the state of Florida for the period stated above. "Florida student" classification shall also be construed to include students who hold an Immigration and

Naturalization Form 1-151, Resident Alien Registration Receipt Card, or Cuban Nationals or Vietnamese Refugees who are considered as Resident Aliens, provided such students meet the residency requirement stated above and comply with subsection (2) below. The burden of establishing facts which justify classification of a student as a resident and domiciliary entitled to "Florida student" registration rates is on the applicant for such classification.
(b) In applying this policy:

1. "Student" shall mean a person admitted to the institution, or a person allowed to register at the institution on a space-available basis.
2. "Minor" shall mean a person who has not attained the age of 18 years, and whose disabilites of minority have not been removed by reason of marriage or by a court of competent jurisdiction.
3. "Domicile" for fee paying purposes shall denote a person's true, fixed, and permanent home and place of habitation. It is the place where the applicant lives and remains and to which he expects to return when he leaves, without intent to establish domicile elsewhere.
4. "Parent" shall mean a minor's father or mother, or if one parent has custody of a minor applicant, it is the parent having court-assigned financial responsibility for the education of the student; or if there is a court-appointed guardian or legal custodian of the minor applicant, it shall mean the guardian or legal custodian.
5. The term "dependent student", as used in this rule is the same as a dependent as defined in sections $151(e)(1)(2)(3)$ and (4) of the Internal Revenue Code of 1954. A copy of these provisions in the Internal Revenue Code of 1954 is incorporated in this rule by reference.
6. A "non-Florida" student is a person not meeting the requirements of subsection (a) above.
(2) In all appptications for admission or registration at the institution on a space-available basis a Florida applicant, or, if a minor, the parent or legai guardian of the minor applicant, shall make and file with such application a written statement, under oath, that the applicant is a bonafide citizen, resident, and domiciliary of the state of Florida, entitled as such to classification as a "Florida student" under the terms and conditions prescribed for citizens, residents, and domiciliaries of the state of Florida. All claims to "Florida student" classification must be supported by evidence as stated in (1) if requested by the registering authority.
(3) A "non-Florida student" or, if a minor, his parent or guardian, after having been a resident and domiciliary of Florida for twelve (12) consecutive months, may apply for and be granted reclassification prior to the first day of classes of any subsequent term; provided, however, that those students who are non-resident aliens or who are in the United States on a nonimmigration visa will not be entitled to reclassification. An application for reclassification as a "Florida student" shall comply with provisions of subsection (2) above. An applicant who has been classified as a "non-Florida student" at time of original enrollment shall furnish evidence as stated in (1) to the satisfaction of the registering authority that the applicant has maintained continuous residency in the state for the twelve months required to establish residence for tuition purposes. In the absence of such evidence, the applicant shall not be reclassified as a "Florida student." In addition, the applicant for reclassification must be accompanied by a certified copy of a declaration of intent to establish legal domicile in the state, which intent must have been filed with the Clerk of the Circuit Court, as provided by Section 222.17, Florida Statutes. If the request for reclassification and the necessary documentation is not received by the registrar prior to the last day of registration for the term in which the student intends to be reclassified, the student will not be reclassified for that term.
(4) Unless evidence to the contrary appears, it shall be presumed by the registering authority of the institution at which a student is registering that:
(a) The spouse of any person who is classified or is eligible for classification as a "Florida student" is likewise entitled to classification as a "Florida student". This provison will not apply in the case of students who are non-resident aliens or who are in the United States on a nonimmigration visa.
(b) If an applicant's eligibility for classification as a "Florida student" is based on the residency of the spouse, the spouse shall make and file with the application a written statement under oath, that said person is the spouse of the applicant and a bona fide citizen, resident and domiciliary of the state of Florida, entitled as such to classification as a "FLorida student."
(c) No person over the age of 18 years shall be deemed to have gained residence while attending any educational institution in this state as a full-time student, as such status is defined by the Board of Regents, in the absence of a clear demonstration that he has established domicle and residency in the state, as provided under subsection (3) above.
(d) Any "Florida student" who remains in the state, after his parent who was previously domiciled in Florida or stationed in Florida on military orders removes from this state, shall be entitled to remain classified as a "FLorida student" so long as his or her attendance at a school or schools in Florida shall be deemed "continuous". However, such student claiming continuous attendance must have been enrolled at a school, college or university in Florida for a normal academic year in each calendar year, or the appropriate portion or portions thereof, from the beginning of the period for which continuous attendance is claimed. Such a student need not attend summer sessions or other such intersessions beyond the normal academic year in order to render his attendance "continuous."
(5) Appeal from a determination denying "Florida student" status to applicant therefor may be initiated after appropriate administrative remedies are exhausted, by the filing of a petjtion for review pursuant to Section 120.68 F.S. in the District Court of Appeal in the appellate district in which the institution maintains its headquarters or where a party resides.
(6) Any student granted status as a "Florida student," which status is based on a sworn statement which is false, shall, upon determination of such falsity, be subject to such disciplinary sanctions as may be imposed by the president of the university.
(7) Special Categories - The following categories shall be treated as Florida residents for tuition purposes if adequate documentation is provided:
(a) A member of the Armed Services of the United States who is stationed in Florida on active duty pursuant to military orders, the spouse and dependent students.
(b) A veteran of the Armed Forces of the United States of America with twenty (20) or more years of active military service, including the spouse and dependent students of such veteran's immediate family, provided that the veteran is in Florida at time of retirement or moves to Florida within one year following retirement and files a declaration of Florida domicle.
(c) Full-time elementary, secondary, and community college faculty members under current teaching contracts in the state of Florida, and their spouses and dependent students.
(d) Full-time faculty, administrative and professional and career service employees of the University System and their spouses and dependent students.
(e) A student certified by his respective state for participation in the Academic Common Market Program of the Southern Regional Education Board who is enrolled in a program approved by the Florida Board of Regents.
(f) Florida domiciliaries living in the Panama Canal Zone who have not established domicile elsewhere, including the spouse and dependent students.
(g) Florida residents who had their residency in Florida interrupted by service in the U.S. armed forces, the Peace Corps or other similar volunteer organizations fostered by the United States government shall be deemed to have had residency in Florida during times of service in the aforementioned organizations.
(8) Reciprocal Agreements. The Board of Regents may enter into agreements with appropriate agencies and institutions of higher education in other states and foreign countries providing for the reciprocal exchange of students enrolled and prospective in higher educational institutions to facilitate utilization of public higher educational institutions in this state and other states or countries. Such agreements may include provisions for waiver or reduction of non-resident tuition for designated categories of students and may include contractual payments to such other state or country, subject to the availability of appropriations. Such agreements shall have as their purpose the mutual improvement of educational advantages for residents of this State and such other states or countries with whom agreements may be made.

## STUDENT AFFAIRS

The Division of Student Affairs includes several areas within the University which provide direct service to students outside the classroom. The Student Affairs Division is designed to directly aid students in obtaining an education at FIU and to provide a broad scope of oppor-
tunities to expand upon classroom knowledge. The student in all processes is the prime focus of Student Affairs: being admitted to FIU, receiving financial aid and counseling services, participating in student activities and sports programs, being involved in student leadership and governance, and securing career development and job placement.

Departments of the Division of Student Affairs at Tamiami are located on the second and third floors of University House, the first and third floors of Primera Casa, the Tower Building, and the Modular Building on the west side of campus. At North Miami, Student Affairs offices are located in the Trade Center Building.

The following section lists some of the services available to you through the Division. If you have questions that are not answered here, visit any of the offices of Student Affairs for assistance.

## ADMISSIONS AND RECORDS

The Office of Admissions and Records, under the direction of the University Registrar, is responsible for the orderly and timely admission of students, evaluation of transfer credits, and dissemination of information about academic programs of the University. It is in this Office that the student academic record is created, maintained, and preserved, and from here are transcripts of the academic record sent. Registration for classes, including the dropping or adding of courses after registration is a function of Admissions and Records, and final grades are distributed by that Office.

The Office staff has the responsibility to serve the student, faculty, other administrative offices, and the general public; to hold safe and preserve the confidentiality of the students' records; and to ensure the integrity of the University's policies and regulations.

## FINANCIAL AID

Florida International University subscribes to the philosophy that a student is entitled to a college education regardless of his or her financial condition. The Office of Financial Aid (Tamiami Campus, Primera Casa, ground floor; North Miami Campus, Trade Center 110) have an extensive program of student financial aid which includes scholarships, grants, loans, and employment. Awards are based on need. Each application is given individual attention.

Assistance may be provided in the form of a scholarship, a loan, part-time employment, or a combination of all three in a "package". Florida International participates in the National Direct Student Loan Program, the Federal Nursing Student Loan and Scholarship Program, the Law Enforcement Education Program, the College Work-Study Program, the Florida Student Assistance Grant Program, the Supplemental Education Opportunity Grant Program and the Basic Educational Opportunity Grant Program. Forms for the Federally Insured Loan, a type of transaction between local lenders and the student, are also processed through the Office of Financial Aid. There is a nine month grace period before the student assumes payment of the loan. The government pays the interest while the student is in school and during the grace period.

In order to qualify for aid, a student must be degree-seeking. A new application for aid must be submitted each year. Forms are available in February for the following summer quarter and academic year. A student enrolling in the summer and fall is strongly encouraged to apply between February 1 and May 1 in order to receive priority consideration. Apply as soon as possible. DO NOT wait until you have been accepted by the Office of Admissions and Records. A student starting at Florida International University in the winter quarter should apply during the previous October. Before a financial aid application can be evaluated, students must do the following:

1. Complete a Financial Aid Form and mail it directly to the College Scholarship Service: the College Scholarship Service will send Florida International University a computerized version of the student's application, which is evaluated to determine his or her need.
2. Complete an office application and mail it to the Financial Aid Office.
3. Every transfer student must obtain and fill out a financial aid transcript form for each school previously attended, and have the Financial Aid Office of each school complete the form and mail it to Florida International University.

If a student is dependent and his or her family's gross income is less than $\$ 15,000.00$, or if he or she is an independent student and his or her gross income is less than $\$ 15,000.00$, the student is expected to do the following, assuming he or she meets the basic qualifications of the programs:

1. Apply for the Florida Assistance Grant Program. The student must be a United States citizen or permanent resident, and a Florida resident for at least 24 months immediately preceding the beginning of the academic year for which he or she is applying. The student must be enrolled for at least 12 hours per quarter.
2. Apply for the Basic Educational Opportunity Grant (BEOG) Program by answering yes to question No. 80 on the FAF (Financial Aid Form), and submit the Student Eligibility Report to Florida International University. The student must be enrolled for at least 6 hours per quarter.
Awards may be adjusted if the income of the student changes. Applicants who fail to notify the Financial Aid Office of assistance from other sources are subject to complete withdrawal of aid.

Please note that the opportunities for financial assistance are limited if a student is not a resident alien or a United States citizen.

## VETERANS INFORMATION

The Veterans' Affairs Office assists all veterans and their dependents who wish to receive V.A. education benefits. Personal counseling, academic counseling, fee deferments, tutorial assistance, and V.A. work/study jobs are available through the Veterans' Affairs Office. The V.A. Office is located in PC 130 at the Tamiami Campus, and TC 145 at the North Miami Campus.

Veterans planning to attend F.I.U. should contact the Veterans' Affairs Office two (2) months prior to date of entry in order to expedite the processing of paperwork required to obtain educational allowances from the Veterans Administration.

|  | TRAINING STATUS |  | RATE OF PAYMENT |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No | 1 | 2 | Each |
|  | Undergraduate | Graduate | Dependent Dependent Dependents Additional |  |  |  |
| Full-Time | 12 quarter hours | 9 quarter hours | \$311.00 | \$370.00 | \$422.00 | \$26.00 |
| 3/4 Time | 9 quarter hours | 7 quarter hours | \$233.00 | \$277.00 | \$317.00 | \$19.00 |
| 1/2 Time | 6 quarter hours | 5 quarter hours | \$156.00 | \$185.00 | \$211.00 | \$13.00 |
| Less than |  |  |  |  |  |  |
| Half-Time | 5 quarter hours | 4 quarter hours | COST OF TUITION |  |  |  |

## INTERCOLLEGIATE ATHLETICS AND RECREATIONAL SPORTS

Florida International University is convinced that athletics develop common interests among students, whether they are participants or spectators.

Recognizing, too, that mind and body combine in the well-being of the total individual, the University offers a wide spectrum of physical activity, giving each student an opportunity to participate according to his or her own interests.

Programs for men and women are offered in four areas:
INTERCOLLEGIATE ATHLETICS: There are men's teams in 5 NCAA sports: soccer, wrestling, baseball, golf and tennis. There are women's teams in 5 AIAW sports: volleyball, softball, basketball, golf and tennis.

INTRAMURAL PROGRAM: A full program of intramurals is offered each quarter. Included are: volleyball, paddleball, racquetball, tennis, handball, softball, basketball, table tennis, golf, and a flying club.

CLUB SPORTS: In addition to the intramural program, an extramural program has been organized in cooperation with the surrounding community and four-year colleges. This nonvarsity program helps to promote goodwill among the colleges in the South Florida community. Clubs are sponsored in: bowling, fencing, lacrosse, basketball, judo, sailing, karate, weightlifting, jogging, and slimnastics.

RECREATION FACILITIES: All athletic facilities are open to students, faculty, and staff with the exception of times reserved for intercollegiate, intramural and recreational sports. Campus facilities are available for tennis, outdoor handball, paddleball, fitness training, wrestling and other activities. There is a practice golf green. Tennis lessons are offered on a regular basis. Locker rooms for both men and women are available with valid student ID.

## UNIVERSITY HOUSE (Tamiami Campus)

University House is the primary student center and provides a focal point for the university community to meet and interact in a non-classroom, yet educational environment. As the hub of student life, UH houses the bookstore, cafeteria, Rathskeller, Cinema Center, International Conference Theater, student publications/communications offices, recreation rooms, TV lounges, Student Government Association offices, student organization offices, and meeting rooms. The Student Activities Office is located on the second floor. Some of the other offices of the Division of Student Affairs, including Career Development and Placement, Cooperative Education, Student Academic Services, International Student Services, and School and College Relations, are located on the third floor.

## STUDENT ACTIVITIES AND ORGANIZATIONS

Student activities are designed to meet the varied needs and potentialities of Florida International students. Student activities programming is co-curricular, and extends the educational spectrum from the classroom into the work of student organizations, Student Government, and a myriad of events and activities throughout the year. Participation in student activities allows a student to gain the broadest possible scope of education during the time that he or she is at the University.

Organizations are continually being formed on both the Tamiami and North Miami Campuses. Students have the opportunity to develop groups that further social and service programs, promote and supervise student welfare, further educational goals, and coordinate and implement community/student cooperation.

Students who are interested in organizing a group or in joining one that exists should go to the Student Activities Office in University House 211 on the Tamiami Campus or in the Trade Center Building, Room 111, on the North Miami Campus.

There are currently 70 registered student organizations on the Tamiami Campus, ranging from the Student Consumer Group, the Professional Commerce Association and the Student Art Association through the International Student Club, the Future Attorneys Association and the Mass Communications Club. Meetings for all student groups are posted on the glass directory boards and bulletin boards throughout the University, and are announced daily on Eventline, 552-2177. The Student Activities Office in University House 211 also has a master schedule of student meetings.

On the North Miami Campus, student groups are just in the process of forming. Students on NMC have a unique opportunity to have an impact on what groups become a part of campus life. The Student Activities Office, in Trade Center 111, can provide information on how to become involved with student organizations or activities, as well as information about what's happening on campus.

## CONSORTIUM STUDENT ACTIVITIES

Students of the three member institutions of the Consortium may attend activities open to Consortium students at any of the nine campuses of the Consortium. Procedure: present current student ID or fee receipt for the current term. The Student Activities Task Force of the Consrotium atso arranges block purchase of tickets to area cultural events for re-sale to students at less than box office prices. The Consortium campuses also jointly schedule cultural events.

## STUDENT PUBLICATIONS

On the Tamiami Campus, the Student Publications/Communications Workroom, University House 212A, provides the base of operations for all present student publications and any other communicative instruments that students initiate. In furthering the University's philosophy
of linking practical experience with theory, student communications provide the opportunity for students to gain journalistic experience outside the classroom. A registered independent campus newspaper, an international magazine, a student handbook, and a yearbook presently exist on the Tamiami campus. Student publications welcome contributions from all segments of the Univerty community and seek staff members as well.

On the North Miami campus also, the opportunity exists for students to initiate any publications they wish. Come to the Student Activities Office in Trade Center Building, Room 111, for further information.

## STUDENT GOVERNMENT

The Student Government Association (SGA), with offices on the Tamiami Campus in University House 310 and 311, and on the North Miami Campus in the Trade Center Building, Room 112, actively represents the student body within the university community. One of the functions of the SGA is to place all interested students on university-wide committees and task forces to insure student representation. Three of the most vital SGA standing committees are: the Social and Cultural Committee, which coordinates all concerts, lectures, film series and cultural and social activities involving students; the Budget Committee, which reviews and funds budget requests from registered student organizations and university departments; and the Committee on Committees, which reviews and screens student applicants for universitywide committees and recommends them to SGA for approval.

Students who have concerns they wish to express should go to the SGA office on either campus.

## GOVERNANCE

Students at Florida International are encouraged to participate in the governance of the University. The essential thrust of the University's philosophy is to provide an effective governance program that truly represents the students, the faculty, and the staff in developing institutional policies.

The governance of Florida International is intended to reflect common goals, and to bring honest differences of opinion out into the open. Through coordinated action and cooperation, students can be an effective force serving the total University community. Student concerns will be considered within the framework of the total governance of the University through student representation on all major University governing councils and committees.

Faculty and staff of Florida International actively seek to learn student desires and needs, which receive major consideration in decision-making processes at the University. At the same time, for effective two-way communication, it is important that students also give consideration to the views of faculty and staff. The University community must work together to meet the basic goals of the institution.

The elected Student Government Association is one of the four Senates in the University Council, the primary governance unit of the University.

## STUDENT HEALTH CARE

The Health Services at Florida International are designed to supplement the normal health care of our totally non-residential population and are adequately prepared to provide emergency health care for anyone becoming injured or ill while on campus.

Our emergency health clinic at the Tamiami Campus is staffed by a registered nurse from 8 a.m. to 11 p.m., Monday through Thursday, and from 8 a.m. to 6 p.m., Friday. The clinic at the Tamiami Campus is located in Owa Ehan, Room 115, and at the North Miami Campus in the Trade Center Building, Room 105, but hours of operation at NMC are limited for 1978-79: see posting on clinic door.

For further information about special student insurance, contact the Health Clinic on either campus.

## HOUSING AND TRANSPORTATION

Florida International does not provide on-campus housing but does assist students in locating housing. For lists of available housing, a student should contact the Division of Student Affairs, Office of Student Academic Services.

There is ample on-campus parking space for automobiles with the purchase of a permit; and bike racks are available for securing bicycles. In addition, connecting bus service to the campus is provided by the Metropolitan Transit Authority.

## INTERNATIONAL STUDENT SERVICES

The International Student Services Office is organized to meet the special needs of international students, and to assist each student in achieving his or her educational objectives. The International Student Advisor serves as a liaison on immigration matters, and provides assistance with academic, financial, social and personal problems besetting international students. An orientation program is held at the beginning of every quarter to acquaint the incoming international student with the University, immigration regulations, and the community. As a means of orienting international students to American family life, an active Host Family Program is maintained. Also, in cooperation with the International Student Club, varied social and cultural activities are regularly scheduled. For example, "International Week," a week of festive activities, is held during each Spring term.

Several publications are provided to inform international students. An International Student Handbook is published annually, and "The Global Forum" (International Student Newsletter) is distributed each quarter. An admissions brochure is provided for prospective students interested in attending Florida International University.

In addition to the International Student Advisor, the International Admissions Counselor is available to assist with all matters pertaining to admissions and the evaluation of foreign credentials. This includes the determination of the amount of credits international students may transfer to FIU.

For further information, contact the International Student Services Office at the Tamiami campus in University House 340, or the Student Affairs Office at the North Miami campus in Trade Center 110.

## CAMPUS MINISTRY

Campus Ministry serves as a center for student groups on campus involved in a variety of religious activities. Professional representatives from various faiths are available for personal appointments. Often individual denominations will sponsor campus-wide programs under the auspices of the Campus Ministry.

The office is open Monday through Friday from 9:30 a.m. to 6:00 p.m. (4:00 on Friday) and evenings as posted. Office location is Primera Casa 233.

## COUNSELING SERVICES

A comprehensive Counseling Services Department provides a variety of counseling, advising and testing programs, conducted by a range of qualified professionals; the services of this Department are available to any student attending FIU. Individualized and group assistance is provided in a variety of programs, addressing such concerns as: career choice, selection of an academic major, personal growth and development, marriage and family circumstances, academic difficulties, and a variety of others. Psychological counseling is also available. Certain special programs have been developed by Counseling Services. These include:

## SPECIAL SERVICES AND THE HANDICAPPED

Special arrangements have been made at Florida International University to serve the needs of those who have physical handicaps, chronic health problems, hearing disorders, visual disorders, speech disorders, or mental or psychological disorders. Special Services operates to provide information and assistance to disabled students attending or wishing to attend FIU. Services include counseling; referral to community agencies; assistance with registration and class schedules; and help in overcoming architectural, academic, or other obstacles which the disabled student may encounter. No student shall be subject to discrimination on the basis of his or her being handicapped. Students attending the Tamiami Campus should contact the Special Services Counselor in PC 313, available Monday through Thursday. Students attending the North Miami Campus can contact the Counselor in TC 110 on Fridays.

## LEARNING SKILLS DEVELOPMENT

Several special learning laboratories and/or programs have been developed to assist students with educational deficiencies or problems. The College of Arts and Sciences sponsors both a Writing Lab and a Mathematics Lab at the Tamiami Campus. Free tutoring in Math, Statistics, and Computer Science is available in the Math Lab; free tutoring for students with writing problems is available in the Writing Lab. For further information about the Math Lab call the Mathematical Sciences Department, at 552-2743; for further information about the Writing Lab call the English Department, at 552-2874

A Writing Lab has also been established at TC 101 on the North Miami Campus.
Additional programs are planned for reading, language, speaking, study and library skills development. Special tutorial arrangements can be made as deemed appropriate or necessary. Testing to assess achievement levels, and placement into special learning programs are also functions of Learning Skills Development. The Coordinator for Student Retention Programs and Learning Skills Development is located in the Counseling Services Department, PC 313, on Tamiami Campus and TC 110 on North Miami Campus.

## FOOD SERVICE

Food and beverage service at Tamiami Campus is available on the first floor of University House. Snacks and complete meals are served cafeteria style. The cafeteria includes tables in the main area, surrounded by small dining rooms and patio dining areas. Food service offers complete catering service. North Miami Campus initially will be served by a variety of vending machines.

## COOPERATIVE EDUCATION

Cooperative Education allows students to alternate quarters of full-time paid employment, for which academic credit is earned, with quarters of full-time study. Students work in professional-level training positions related to their major field of study. Interested students may obtain detailed information about cooperative education from their academic advisor or the Department of Cooperative Education on either campus in Student Development.

## CAREER DEVELOPMENT AND PLACEMENT

The Career Development and Placement Department (at both campuses) exists solely to assist students and alumni with career-life decision making. Students who wish to explore their full potential and interest will find the department's professional counselors and staff most helpful. This also applies to alumni. Professional staff members work closely with graduates who are pursuing career changes or evaluating options open to them. Services which are included in Career Development consist of: counseling; topic seminars for group guidance (e.g. seminars on interviewing techniques; resume and letter writing); on-campus recruiting by employers; and maintenance of full and part-time employment opportunity notebooks. Resources of this department include a career resource library, employment directories, and pertinent application forms for many schools, businesses, and industries. Career Development also provides a placement file service where students and alumni may maintain their job credentials, resumes, letters of recommendation and transcripts. These placement files serve both as a source of reference for individuals seeking positions and as an office referral system between Career Development and potential employers. Students at the North Campus meet with recruiters for interviews at the Tamiami Campus.

## CONSORTIUM CAREER PLANNING AND PLACEMENT SERVICES

Students and alumni of the three member institutions of the Southeast Florida Educational Consortium may request career planning assistance and placement services at any of the nine Consortium campuses. Procedure: the student or alumnus should identify his or her campus (of graduation) at the time of requesting the service.

## SCHOOL AND COLLEGE RELATIONS

The Office of School and College Relations in UH 340 works with the community colleges in the state in an effort to make the transition to the upper-division university smoother. It also
coordinates efforts with the University's academic departments to gain a better picture of their program requirements and to communicate those requirements to the community colleges.

The Office of School and College Relations serves as a focal point for those interested in expanding the University's constituency with special efforts in the recruitment of blacks, Hispanics, women, and senior citizens.

Orientation for new students is coordinated in the Office of School and College Relations with cooperative efforts from the Division of Student Affairs, Academic Affairs, and the Student Government Association. This program welcomes students and familiarizes them with the variety of services and activities available at the University.

School and College Relations also houses the Office of International Students. The evaluation and admission of international students takes place in the office, as well as general advisement and program development.

## UNIVERSITY PUBLIC SAFETY DEPARTMENT

The Florida International University Department of Public Safety is a full service Public Safety organizational unit, dedicated to the maintenance of a peaceful and safe academic environment throughout the entire University community.

The protection of persons and property is the specific responsibility of the Department of Public Safety's police division. As State of Florida police officers, members of this unit have complete law enforcement responsibility for the University community. The university police division attempts to address the needs of the educational community through objective enforcement and quality Public Safety service provided around the clock.

The Safety Office of the University Department of Public Safety is specifically intended to address the adherence to occupational safety standards and stress the continued improvement of safety awareness. Handicapped compliance, fire safety, occupational safety, and first aid awareness are specific responsibilities of the Safety Office of the University Department of Public Safety.

## ADMINISTRATIVE AFFAIRS

Administrative Affairs at Florida International University exists to plan, facilitate, and service the other areas of the University. It provides many services centrally for the multicampuses, providing the advantage of economy of scale. At the same time, recognizing the importance of full service to meet the needs of each individual campus, Administrative Affairs maintains fully functioning staffs of problem solvers at each location. Administrative Affairs operates the following nine service areas:

Staff Functions
Legal Affairs
University Planning \& Facilities
Internal Management Auditing Unit

## Service Operations

Auxiliary Services
Physical Plant Operations
University Controller
University Budget Office
University Personnel Services
University Purchasing Services

Each area is described briefly below:

## AUXILIARIES

The Auxiliary Services of the University are self-supporting entities that sell goods and services at a price that approximates the cost. Auxiliary Services operates and coordinates food service, bookstore, duplicating, central stores, University House and vending.

## INTERNAL MANAGEMENT AUDITING UNIT

Internal auditing is an independent appraisal activity for the review of accounting, financial and other operations, as a service to University management. The overall objective of this Office is to assist all members of management in the effective discharge of their respon-
sibilities, by furnishing them with objective analyses, appraisals, recommendations, and pertinent comments concerning the activities reviewed. This Office reports jointly to the Board of Regents and the University.

## LEGAL SERVICES

The Office of Legal Affairs is staffed by qualified attorneys licensed to practice law in the State of Florida. These attorneys provide all the necessary legal services for the University. The office has a legal library and can provide legal assistance in contractual and personnel matters as well as general legal advice.

## PHYSICAL PLANNING

The Division of Physical Planning is responsible for the preparation, maintenance, and implementation of the University's physical development program - this includes the programming, design, and construction of all major buildings and campus development projects. This Division assists in the development and maintenance of long-range campus master plans; coordinates the preparation of all building programs; and serves as University liaison between the Board of Regents and metropolitan and local governmental agencies. In addition, the Division conducts studies on projected University needs, prepares space utilization reports, makes traffic studies, and formulates planning standards. A current inventory of all University development is maintained as well as base maps, as-built drawings, and other development criteria essential to facilitating the University's accelerating development program.

## PHYSICAL PLANT OPERATIONS AND MAINTENANCE

The Physical Plant Division plans, designs and constructs all renovations. It operates, maintains and repairs the physical facilities of both campuses and provides many ancillary services.

- Planning, Design and Construction - Within the guidelines of the University Master Plan, Physical Plant plans new facilities; completes engineering and design for construction, renovation and alteration projects; and administers construction contracts, generally for those projects costing less than $\$ 100,000$.
- Maintenance and Grounds Departments - These units repair and maintain FIU buildings, roads, and grounds. They also undertake smaller alterations and construction projects, usually those costing less than $\$ 5,000$.
- Campus Services and Custodial Departments - These departments provide myriad services, including: key issue; telephone service; furniture and equipment moving; setup for special events; recycling of newspapers; cleaning of classrooms, laboratories, offices and common interior areas; and pest control services.
- Central Utilities - This unit provides air conditioning for the campus buildings, through the central chilled water system or packaged or window units.


## UNIVERSITY BUDGET OFFICE

Operating with an annual total budget approaching $\$ 40,000,000$ - a significant investment of monies from the public and private sectors of the economy - Florida International University delivers programs and services to the South Florida community. The University Budget Office is the focal point where the seemingly unlimited programmatic needs and limited fiscal resources are molded into manageable and accountable budgets. Through the preparation of legislative budget requests, annual operating budgets and comprehensive expenditure analyses, this office serves the University by constantly monitoring and coordinating the distribution of fiscal resources.

## UNIVERSITY CONTROLLER

The Controller's Office is responsible for recording and reporting all University financial data. Functional areas within the Controller's Office include:

- CASHIER'S OFFICE - Effects collection of all University fees, including registration fees, short-term loans, library fines, and parking decals. The distribution of financial office.
- CONTRACTS AND GRANTS - Prepares fiscal and financial reports; and analyses of all Federal, State and local grants, along with reviews of expenditures and budget for compliance with the grants.
- RECORD RETENTION - Inventories the various departments' files and sets up record retention schedules for data contained within the departments.
- GENERAL ACCOUNTING - Performs various bank and ledger reconciliations, and prepares annual financial reports and construction analyses and reviews.
- ACCOUNTS PAYABLE - Processes all University bills for payment. This includes travel reimbursements, consultants' fees, construction costs and other payments allowable under State law.
- CASH DISBURSEMENTS - Distributes payroll, petty cash funds.
- PAYROLL - Administers the University payrolls for faculty, A \& P, career service and part time employees.


## UNIVERSITY PERSONNEL SERVICES

The Department of University Personnel Services is responsible for the administration of uniform personnel policies. The Department performs the following service and support functions: recruitment, position classification, training, maintenance of personnel records, employee counseling and grievance adjustment, administration of the employee performance rating system and employee fringe benefit programs.

## UNIVERSITY PURCHASING SERVICES

Purchasing Services provides for centralized buying of all University supplies, equipment, and contractual services - and includes the following functions:

Central Stores supplies commonly used office supplies and equipment at substantial savings to University departments.
Central Receiving is the central delivery point for receiving all supplies and equipment purchased by the University from outside vendors.
Campus Mail processes all outgoing official University mail and distributes all incoming mail.
Property Control coordinates the accountability (inventory), transfer and ultimate disposal of all accountable property.

## FAU-FIU JOINT CENTER FOR ENVIRONMENTAL AND URBAN PROBLEMS

The establishment in July 1972 of a Joint Center for Environmental and Urban Problems by Florida International University and Florida Atlantic University was based on the premise that many of South Florida's urban and environmental problems must be approached on a regional basis: that such problems know no political boundaries. The Joint Center Headquarters, which houses the office of the director, is situated in Fort Lauderdale with branch offices on the FIU and FAU campuses. The FIU office is staffed by an assistant director and research associates.

Within the next decade, decisions must be made on such critical areas as transportation, pollution control, land use, housing, energy policy and conservation, growth management, and the design of a regional government system capable of effective problem-solving. As a catalyst in coordinating and supporting private and public efforts to solve some of these problems, the Joint Center concentrates on both research and service responsibilities.

## RESEARCH

Applied research grants are awarded each year by the Joint Center to faculty of both Florida Atlantic University and Florida International University to do research on environmental and urban problems of current concern in the South Florida area. Besides this supported research at the universities, "in-house" research projects are conducted by the Joint Center staff. Examples of these supported research projects include: the study of noise pollution, the
problem of heavy metal accumulation in Mid-Biscayne Bay, analysis of air and water samples in Dade and Broward counties, and consideration of the problems associated with nuclear plant siting. Research results, produced at the Joint Center and elsewhere, are made available to public and private agencies attempting to find and apply solutions to urban and environmental problems.

## SERVICE

As a service organization, the Center provides professional assistance, maintains inventories of needs and scientific manpower availabilities, disseminates information, and facilitates communication among groups concerned. Special effort is concentrated on providing services in the solution of urban and environmental problems which have an increasingly regional character

Other Center activities include: 1) The publication of a bimonthly magazine, Florida Environmental and Urban Issues; and a Spanish language edition, Temas Urbanos Y Del Medio Ambiente En La Florida. 2) Sponsoring of seminars and conferences addressing such topics as solar and nuclear energy, air and water quality, land use planning, and resource recovery. (These are announced through the news media as they are scheduled.) 3) Facilitation of communication within/between citizens groups and public agencies, and provision of information as a basis of effective action.

## UNIVERSITY OUTREACH AND SERVICES

This modern, urban University does not confine its instruction and research activities to laboratories and classrooms on its two campuses. Since FIU's founding, strong emphasis has been placed on extending academic programs into the community through University Outreach. This unit of the University provides specialized administrative skills which coordinate interaction between University faculty, students, and staff, and the South Florida community.

University outreach is fostered through major administrative elements in Academic Affairs which are: Continuing Education; the Center for Labor Research and Studies; the Institutes of Women, Consumer Affairs, and International Creative Communication; the Elder's Institute; and the statewide External Degree Program. These units work with the faculty to provide service to the community through teaching and research.

## DIVISION OF CONTINUING EDUCATION

Continuous education throughout life is required if a person is to maintain effectiveness in complex modern society. The primary responsibility of the Division of Continuing Education to provide lifelong education to members of the community throughout the University's Dade, Broward and Monroe County service area.

THE DEPARTMENT OF CONFERENCES brings university resources to the community through a variety of non-credit programs - workshops, seminars, conferences and short courses. These programs are developed for specific professional, para-professional, and lay groups in order to keep them abreast of changes in their fields or areas of special interest.
Program participants are awarded the CEU's (Continuing Education Units) as a measure of their participation in non-credit activities. The record of CEU's earned is maintained by the University and is provided to the participant upon request.
THE DEPARTMENT OF OFF-CAMPUS AND WEEKEND CREDIT COURSES serves as the focal point at which community needs are expressed, identified and generated into credit courses and programs, utilizing appropriate university resources.
The important and unique feature of the Department is that it provides regular and special courses and programs at locations and times which are most convenient for those who request and enroll in them. Courses which meet on Saturdays on either of the main university campuses have become especially popular.

## CENTER FOR LABOR RESEARCH AND STUDIES

The Center provides educational services, with or without academic credit, in the areas of labor and manpower studies, labor relations for management and union groups, and collective
bargaining, throughout the State of Florida. The Center maintains an applied research program designed to support instruction and consultation in the above areas. The Center also sponsors, through the External Degree Program and the School of Technology, an external baccalaureate degree, and a certificate program in Industrial and Labor Relations.

## INSTITUTE FOR WOMEN

The Institute provides educational services, credit and non-credit, in the areas of life-career plans, industrial management, minority relations, and international studies for educational, medical and industrial groups throughout the state of Florida. The Institute maintains an applied resource program designed to provide inservice support and counseling in the above areas.

In cooperation with the External Degree Program, the Institute sponsors external baccalaureate degrees, in career-life planning, and in minority relations in industry.

## INTERNATIONAL INSTITUTE FOR CREATIVE COMMUNICATION

The Institute supports programs in the arts and humanities; and assists other agencies and community groups in initiating, obtaining and administering state and federal grants. The Institute locates expertise and communicates information throughout the University system.

## CONSUMER AFFAIRS INSTITUTE

The Institute functions in a research, teaching, and service capacity. Its primary goal is to develop alternatives to the adversary/advocate system in the equitable solution of consumer affairs problems. Working on the peer level, it attempts to bring together representatives of consumers, business, government, labor and academia. The Institute is jointly sponsored by Florida International University and the University of Miami.

## ELDER'S INSTITUTE

The Institute is designed to meet the educational needs of older-aged people, although no special age limit is specified for admission to Institute programs. The programs include non-credit short courses on or off-campus; educational counseling and guidance for olderaged students enrolled in credit courses and degree programs, or considering such enrollment; specialized seminars, workshops, and conferences for older persons; opportunities for cultural enrichment and constructive participation in community affairs, the visual-auditorycommunicative arts, voluntary service, or re-entry to paid employment; and intergenerational programs of various kinds. The Institute brings representatives of the community and service agencies together to plan and conduct these programs. Many of the instructors are themselves qualified retired individuals.

## FACULTY SCHOLARS PROGRAM

The Faculty Scholars Program provides an opportunity for especially well-qualified high school graduates to complete the baccalaureate degree in two to three years, enrolling directly in the upper division university. Based on demonstrated academic performance and leadership potential, a limited number of gifted and unusual students will be invited to participate in this program offered by Florida International University. Each student selected for the program will be required to have a personal interview with the Faculty Scholars Admissions Committee. A Professor-specialist in the student's proposed field of interest will serve as the student's advisor-mentor throughout the undergraduate program. In addition to core requirements and departmental discipline courses, the student and his or her advisor will deisgn an individualized course of study, and plan close interaction in research, seminars, and study with members of the faculty as well as visiting professors, to meet the necessary requirements for the baccalaureate degree. This early association with a distinguished scholar-teacher is intended to enrich the student's promise as a person, and his or her potential as a scholar and a professional

For detailed information concerning the Faculty Scholars Program, contact Dr. Clair T. McElfresh, Director - DM 436B - 552-2893.

## STATE UNIVERSITY SYSTEM EXTERNAL DEGREE PROGRAM

The Florida Board of Regents has authorized Florida International University to administer the State University System External Degree Program. This statewide authorization enables students to take advantage of all educational resources throughout Florida, without requiring residency on any campus. It is a self-directed, non(campus)residential program for residents of the State of Florida.

Individual study plans are designed for each student in the form of an Educational Contract. In the Contract, the student is awarded credit for previous academic experience and for previous work and other life experiences. The Contract also specifies the program of study, outlining what remains to be done for the completion of a baccalaureate degree. Students may enroll in the program and begin their course of study at any time. The length of time required for each student to complete the bachelor's program will vary according to the amount of credit needed for completion and the speed at which the individual student wishes to work.

## PROGRAMS OFFERED

The External Degree Program is operated through the faculty of the regular departments and divisions in Florida International's college and schools. The degrees offered are the same degrees as the regular degrees offered by the college and the schools, but they are achieved through alternative means. All degrees offered by the College of Arts and Sciences, the School of Health and Social Services, the School of Technology, the School of Business and Organizational Services, and the School of Hospitality Management may be earned through the External Degree Program.

## CREDIT FOR LEARNING FROM WORK AND OTHER LIFE EXPERIENCE

Many persons have accumulated non-college experiences that can be translated into college credit. By various methods of evaluation, our faculty is able to assess a student's competence level and grant advanced standing accordingly. Methods of evaluation range from the standardized College Level Examination Program (CLEP) to individual written and oral presentation before persons with established credentials in the disciplines under consideration. There is no minimum or maximum number of credits the faculty may award.

Examples of work and other life experiences which may be considered for credit are: inservice training, short courses, continuing education, correspondence studies, seminars, travel, and professional occupational experiences.

## INDEPENDENT STUDY - NON-RESIDENTIAL WORK

Although most External Degree students take some formal classroom work during completion of their Educational Contracts, classroom instruction is not required. When it is clear that classroom work is unsuitable or impossible for a particular student, arrangements for Independent Study, conducted at home or on the job and off of any university campus, are worked out through reading lists, research papers, and educational projects.

Entrance Requirements:

1. Florida Residency.
2. Completion of two years of college studies or the equivalent.
3. Commitment to independent study.
4. Submission of detailed application forms.
5. Acceptance as an External Degree student by a faculty adviser.
6. An initial interview.

## Fees

Contract Fees: $\$ 200.00$ per year
Tuition Fees: $\$ 16.50$ per quarter hour of undergraduate credit. All formal coursework and Independent Study detailed in the Educational Contract is paid for at this rate. Contract fees cover the following costs:

1. Evaluation of application.
2. Counseling and interview procedures.
3. Assessment and awarding of credit for prior learning.
4. Individualized educational program.
5. Writing of the Educational Contract.

## OFFICE OF DEVELOPMENT AND ALUMNI AFFAIRS

Contributions of financial resources such as bequests, cash donations, equipment, and endowments, for the advancement of the University from national and local non-governmental sources are solicited through this department. The "margin of excellence" that distinguishes a great university from an adequate university is encouraged and provided through the activities of the following groups:

THE FLORIDA INTERNATIONAL UNIVERSITY FOUNDATION, INC., is composed of business and professional leaders of the community who have dedicated themselves to furthering the University by encouraging, soliciting, receiving and administering donations for the benefit of the institution.
INTERNATIONAL SOCIETY OF THE ARTS was established to encourage interest and support in the fine arts programs of the University. Persons from the Greater Miami area seek funding for student financial aid and the betterment of the cultural arts.
THE SUNBLAZERS CLUB seeks financial aid and support for the athletic programs of the University with the goal of providing a superior sports and recreation program for University students.
Although FIU is still a young institution, it has graduated over ten thousand, and nearly 33,000 persons have taken courses at the University. This department also maintains liaison with FIU alumni to solicit their support for the University's growth, and to encourage alumni to continue their post-secondary education.

## DIVISION OF UNIVERSITY RELATIONS

The division fosters internal and external communications and involvement in a variety of ways with the goal of fully informing interested publics with current information about all facets of the University, our impact in the communities we serve, our future goals and continuing progress. Three interrelated departments provide University-wide services in the areas of public information, publications, and the coordination of special events.

## DEPARTMENT OF INFORMATION SERVICES

Writers and media specialists in this department inform the various publics and University personnel of current events and activities through the distribution of daily news releases to all professional media; a weekly internal announcement sheet entitled The Blue Bulletin; a weekly internal/external bulletin called The Ivory Tower; and the maintenance of a Speaker's Bureau to provide high-quality University speakers on a wide variety of topics for any community group or organization.

## DEPARTMENT OF PUBLICATION SERVICES

Creative graphic design and publications production personnel in this department coordinate the preparation of hundreds of publications to convey information about University programs, activities and services to selected and general audiences.

## DEPARTMENT OF SPECIAL EVENTS

Providing service to the various publics of the University through promotion of attendance at special events such as lectures, plays, concerts, athletic events, commencements, and other public functions is the goal of this department. Such events are scheduled and coordinated by this department, which also maintains a University-wide information center and master calendar of events.

## INTERNATIONAL AFFAIRS CENTER

A primary goal of Florida International University is to become a major international education, training, and research center. The University's mandate extends beyond the education of Floridians and service to the South Florida community, to the creation of mutual understanding among the Americas and throughout the world.

Florida International University is dedicated to international education in the forms of academic research, teaching, service, and cooperative exchange. The focus of the international thrust of the University is the International Affairs Center. The function of the International Affairs Center is to conduct research, development, and joint programs in cooperation with all elements of the University, in international education, research and training.

In order to expose Florida International University students to the dynamics of United States participation in world activities, and to the equally critical roles played by other countries in the world scene, the University encourages the offering of internationally oriented courses. To that end, Florida International University currently provides degree majors and certificate studies programs encompassing international dimensions in the following areas:

College of Arts and Sciences
International Economics and Development major
International Relations major
Liberal Studies major
Modern Language Majors
Earth Sciences major
1 - Certificate in Caribbean Studies
Political Science major
Ethnic Studies Certificate Program
1 - Cuban Studies Certificate
2 - Jewish Studies Certificate
Caribbean-Latin American Studies Certificate Program
1 - Academic Certificate in Caribbean Studies
2 - Professional Certificate in Caribbean Studies
School of Business and Organizational Sciences
International Business major (undergrad.)
Business Administration major (undergrad.) International Marketing Concentration
Master of Science in Management: Finance International Finance Specialization
Master of Science in Management: Accounting International Finance concentration International Accounting Program Taxation specialization
Master of Science in Management: International Business
In addition, the School of Education offers a wide variety of courses with an international dimension, such as International Comparative Education and Bilingual School Curriculum and Administration. The School of Hospitality Management offers a program in International Hotel Management, and the School's Travel and Tourism Management program has a strong international component.

Integral to Florida International University's international curriculum is attraction of world renowned faculty to the University, and the participation of Florida International University faculty members in international activities on campus and abroad. Noteworthy efforts of the faculty and staff include cooperative projects with the Bahamas, Colombia, Haiti, Mexico, Venezuela, and Brazil.

By providing research, training, development and joint delivery of education, research and training programs with the College of Arts and Sciences and the Schools of the University, the International Affairs Center concentrates on the delivery of solutions to the academic and pragmatic problems and challenges facing the international community. The staff of the Center serve as planners, researchers, developers, advocates, and administrators for all international dimensions of the University. A fundamental principle of the Center's operation is that the most
productive and valuable international activities are those which are multidisciplinary. Priority emphasis is given to those efforts in which two or more schools or departments of the University can be involved.

The promotion of faculty and student research and study abroad is also a function of the Center. In this regard the Center acts as a clearinghouse for International programs sponsored by the University and by other organizations such as the State University System, various public agencies, and other universities in the United States and abroad. An adjunct to the Center's efforts to internationalize all aspects of the University is the admission of students from all over the world to Florida International University through the office for International Student Services. International students from the Caribbean, South and Central America, Africa, Europe, Southeast Asia, the Far East, Near and Middle East, and Oceania are studying at Florida International University. Currently, fifty-one countries are represented in the Florida International University student body. The International Student Services Center works closely with the International Affairs Center in facilitating the admission to Florida International University of students from abroad.

The endeavors of Florida International University and its International Affairs Center are a demonstration of the Institution's commitment to cooperative participation in service to the world.

## LIBRARIES

The University libraries are housed in the Athenaeum on the Tamiami Campus, and in temporary quarters in the Trade Center Building at the North Miami Campus.

Some 300,000 volumes comprise the total library collection in addition to substantial holdings in federal, state, local, and international documents; maps; microforms; music scores; newspapers; institutional archives; and curriculum materials. The Library subscribes to approximately 4,000 scholarly journals and other serials.

The public card catalogs are divided into three sections for author, title, and subject entries. The location of the resources is given on the cards in each of the three sections of the catalogs. The bulk of the collection is housed in open stacks.

Classification of library resources is according to the Library of Congress system, except for some of the documents and special collections (e.g. U.S., Florida, and U.N. documents, archives, etc.) which are arranged by their own classification systems and have separate public catalogs.

In keeping with the University's commitment to day and night operation, the libraries are open when the University is in session and during vacation periods. For exact library hours, please consult the posted schedules. Staff members are always available at the Public Service desks to assist students and faculty in their use of the libraries.

## CONSORTIUM LIBRARY PRIVILEGES

Currently registered students, faculty, and staff may use the libraries on any of the nine campuses of Broward Community College, Florida International University, and Miami-Dade Community College, including having access to periodicals and other materials not on open shelves. Some materials are placed on reserve to restrict their use. Each library has the periodical lists of the other consortium campuses.

Students may borrow materials from any of the consortium campuses through interlibrary loans arranged at their home campus libraries. Procedure for requesting an inter-library loan: Students present a valid fee receipt or student ID for the current registration period; faculty present current staff identification.

Faculty and staff may also check out materials at any campus library of the Consortium. Procedure for check-out: present current staff identification

## MEDIA CENTER

The Media Center offers service to faculty, staff and students, and is located in Athenaeum, with support facilities in Viertes Haus and Primera Casa 236. Media Services are provided by the following Divisions: AV Research and Equipment Division; Learning Resources Division; and Instructional Graphics Division.

Faculty may seek assistance in the development of instructional support in any A.V. medium. Film librarians acquire lilms, audio/video tapes, and instructional kits. Films, tapes, and kits can be scheduled through film library. A language lab is also located in this area. The Equipment Distribution Center purchases and maintains all A.V. equipment for the University, as well as delivering A.V. equipment to classrooms. Graphic artists and photographers assist faculty and staff in the preparation of desired instructional visual support. A learning resources specialist is available for consultation and production support. Faculty and students may prepare graphic materials in the Faculty-Student Production Center, with the assistance of an audıo-visual specialist.

## CONSORTIUM MEDIA PRIVILEGES

Faculty, stalf, and students may use the audio-visual services on any campus of the Consortium. A-V materials and equipment may not be borrowed.

## OFFICE OF MINORITY AFFAIRS AND WOMEN'S CONCERNS

The office provides leadership and direction in the administration of University equalization programs for women and minorities in several ways. It assists University units in implementing and monitoring affirmative action-procedures; provides a channel for employee and student grievances regarding discrimination, or issues that indicate the need for additional affirmative action; and promotes effective relationships between the University and community organizations.

## OFFICE OF INSTITUTIONAL RESEARCH

The Office conducts research and evaluations related to the internal operations of the University, and analyzes and reports University statistics to federal and state agencies and other relevant groups. A member of the Office serves as University data administrator, responsible for coordinating the completion of all data requests made by the Florida Board of Regents and most data requests from all other sources.

The Office publishes a variety of reports on a regular basis. Those with widest applicability deal with student characteristics and student enrollments, both actual and projected.

The Office has the responsibility of overseeing the quality of questionnaires which are distributed within the University, and provides support services for those conducting studies.

Additionally, through the use of an on-site demand terminal and special data files created for its use, the Office responds to ad-hoc requests for information from University committees, individual faculty members, administrators, and students.

## DIVISION OF SPONSORED RESEARCH AND TRAINING

The Division of Sponsored Research and Training serves the research and training needs of interested faculty by providing timely information on the availability of local, State and Federal program support. The attraction of these funds to the campus provides an opportunity to better serve the needs of the people of Florida through services not regularly funded by the Legislature.

Among the major goals of the Division of Sponsored Research and Training are the following:
to help stimulate faculty and staff interest in research and training projects
to assist the faculty and staff in obtaining funds for research and training projects, and to provide technical assistance to faculty and staff who submit proposals to the Division for the University.

## COMPUTER SERVICES

The University provides computer services primarily through the facilities of the Southeast Regional Data Center and also has access to other regional data centers as required. Computing equipment available include on-line terminals in a student laboratory at both the Tamiami and North Miami campuses for interactive time-sharing services. At both
locations remote batch job entry devices provide for rapid batch processing service. One section of the Computer Services Department is designated as a support team for Instruction and Research users of computers. Here faculty and students may receive assistance in problems they may encounter.

In addition to the Instruction and Research section of the Computer Services Department, there is also the Administrative Systems and Programming group responsible for providing the computer support necessary for the ongoing operation of Florida International University. The last section, Operations, has the responsibility of receiving batch processing requests and routing them to the appropriate computer for processing. Completed work is then available at centrally located dispatch areas on both campuses.


## STATEWIDE COURSE NUMBERING

This year's catalog exclusively uses a new Statewide Course Numbering System. Included for your information is an explanation of the course system, a table of the course abbreviations and a cross reference table between the discontinued Florida International University prefixes and numbers and the new Statewide Course Numbering system.

Faculty, department and division information can be obtained from the Office of Student Academic Services (552-2439) which is responsible for implementing Statewide Course Numbering at Florida International University. Student questions and concerns should be directed to the Office of Admissions and Records (552-2311).

## FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM

The course numbers appearing in the catalog are part of a statewide system of prefixes and numbers developed for use by all public postsecondary and participating private institutions in Florida. One of the major purposes of this system is to make transferring easier by identifying courses which are equivalent, no matter where they are taught in the state. All courses designated as equivalent will carry the same prefix and last three digits.

The classifying and numbering of courses was done by community college and university faculty members in each academic discipline. Their work was reviewed by faculty members in all of Florida's postsecondary institutions who made suggestions and criticisms to be incorporated into the system.

The course numbering system is, by law, descriptive and not prescriptive. It in no way limits or controls what courses may be offered or how they are taught. It does not affect course titles or descriptions at individual schools. It seeks only to describe what is being offered in postsecondary education in Florida in a manner that is intelligible and useful to students, faculty and other interested users of the system.

The course numbering system was developed so that equivalent courses could be accepted for transfer without misunderstanding. Each public institution is to accept for transfer credit any course which carries the same prefix and last three digits as a course at the receiving institution. For example, if a student has taken SOC 000 at a community college, he cannot be required to repeat SOC 000 at the school to which he transfers. Further, credit for any course or its equivalent, as judged by the appropriate faculty task force and published in the course numbering system, which can be used by a native student to satisfy degree requirements at a state university can also be used for that purpose by a transfer student regardless of where the credit was earned.

It should be noted that a receiving institution is not precluded from using non-equivalent courses for satisfying certain requirements.

## General Rule for Course Equivalencies

All undergraduate courses bearing the same alpha prefix and last three numbers (and alpha suffix, if present) have been agreed upon to be equivalent. For example, an introductory course in sociology is offered in over 40 postsecondary institutions in Florida. Since these courses are considered to be equivalent, each one will carry the designator SOC 000.

## First Digit

The first digit of the course number is assigned by the institution, generally to indicate the year it is offered - i.e., 1 indicates freshman year, 2 indicates sophomore year. In the sociology example mentioned above, one school which offers the course in the freshman year will number it SOC 1000; a school offering the same course in the sophomore year will number it SOC 2000. The variance in first numbers does not affect the equivalency. If the prefix and last three digits are the same, the courses are substantively equivalent.

## Titles

Each institution will retain its own title for each of its courses. The sociology courses mentioned above are titled at different schools "Introductory Sociology," "General Sociology," and "Principles of Sociology." The title does not affect the equivalency. The courses all carry the same prefix and last three digits; that is what identifies them as equivalent.

## Lab Indicators

Some courses will carry an alpha suffix indicating a lab. The alpha suffixes "L" and "C" are used as follows to indicate laboratories:
"L" means either (a) a course, the content of which is entirely laboratory or (b) the laboratory component of a lecture-lab sequence in which the lab is offered at a different time/place from the lecture.
"C" means a combined lecture-lab course in which the lab is offered in conjunction with the lecture at the same time/same place.

Examples: Marine Biology
Marine Biology with lab OCB 013C (lecture and lab combined)
Therefore, OCB 013C is equivalent to OCB 013 plus OCB 013L.

## Equivalency of Sequences

In certain cases, sequences of courses in a given discipline are equivalent rather than the individual courses which make up these sequences. (For example, MAC $132,133,134$ ). In these cases the subject matter topics may not be taught in the same sequence, course by course, in several institutions; however, upon completion of the full sequence at any of the several institutions, students have completed substantively equivalent content. These sequences are clearly identified in the Course Equivalency Profiles.

## Explanation of Prefixes and Numbers

Prefixes and numbers in the course numbering system are not chosen at random; they are designed to describe course content in an organized fashion within a classification system developed for each subject matter area.

Generally, each of the major classifications in a discipline is represented by a three-alpha prefix. In some cases, one three-alpha prefix has been sufficient for the entire discipline. A discipline may use as many prefixes as necessary to accommodate its major classifications. The logic of the system allows it to be infinitely expandable with minimal disruption to existing numbers.

History, for example, has seven prefixes: AFH, African History; AMH, American History; ASH. Asian History; EUH, European History; HIS, History-General; LAH, Latin American History: and WOH, World History. All history courses in the state will carry one of these prefixes.

A more specific example is AMH 3421.

(Local titles are used for each particular course. The last three numbers are used to indicate equivalency.)

The number of pitixes is a function of the extent of the subclassifications of the given subject matter area

When this work began there were 920 alpha prefixes in existence; with the new system there are now 370. As in most states there existed no uniformity in Florida's prefixes as indicated by the example below:

| Discipline | Before | After |
| :--- | :---: | ---: |
| History | 20 | 7 |
| Sociology | 24 | 3 |
| Philosophy | 23 | 4 |
| Religion | 17 | 1 |
| Mathematics | 50 | 10 |
| English | 39 | 6 |
| Nutrition | 38 | 4 |

Although it is true that a student majoring at one of the 38 participating institutions may have had only one alpha prefix for his major (e.g.. HY-History) and now he will have seven, all prefixes in the same subject matter areas will be the same throughout these institutions.

A complete inventory of taxonomic listings, equivalent and unique courses has been made available to each academic department of every institution in the slate. Students, through their local advisors, should use this information in designing programs which will transter smoothly.

## Exceptions to the Rule for Equivalencies

The following are exceptions to the general rule for course equivalencies:
A. All graduate level courses (except those which the faculty and their reviewing colleagues have determined to be substantively equivalent with undergraduate courses) are not automatically transferable.
B. All numbers which have a second digit of 9 (Ex.: ART 2906) are "place keeper" numbers for such courses as directed independent study, thesis hours, etc. Courses with 900 numbers must be evaluated individually and are not automatically transferable.
C. All internships. practicums, clinical experiences and study abroad courses, whatever numbers they carry, are not automatically transierable.
D. Performance or studio courses in Art, Dance. Theatre, and Music are not automatically transterable but must be evaluated individually.


## DIRECTORY OF PREFIXES (Alphabetical)

| $\stackrel{0}{0}$ | PREFIX | SUBJECT AREAS | PREFIX | SUBJECT AREAS |
| :---: | :---: | :---: | :---: | :---: |
|  | ACCACTADEADVAEBAEEAERAESAEA | Accounting | CHS | Chemistry - Specialized |
|  |  | Air Conditioning Trades | CHT | Chinese Literature in Translation |
|  |  | Adult Education | CIS | Computer \& Information Systems |
|  |  | Advertising | CJD | Criminal Justice Development |
|  |  | Agricultural Economics \& Business | CJT | Criminal Justice Technology |
|  |  | Agriculture \& Extension Education | CLA | Classical \& Ancient Studies |
|  |  | Automotive/Engine Repair | CLP | Clinical Psychology |
|  |  | Aeronautical Systems | CLT | Classical Literature in Translation |
|  |  | Atro-American Studies | CNM | Computational/Numerical Methods |
|  | $\begin{aligned} & \text { AFA } \\ & \text { AFH } \end{aligned}$ | African History | COA | Consumer Affairs |
|  | $\begin{aligned} & \text { AFR } \\ & \text { AFS } \end{aligned}$ | Air Force ROTC | COC | Computer Concepts |
|  |  | African Studies | COE | Cooperative Education |
| (1) | AGE | Agricultural Engineering | COM | Communication |
| $\underline{\square}$ | $\begin{aligned} & \text { AGG } \\ & \text { AGR } \end{aligned}$ | Agriculture - General | COP | Computer Programming |
| Q |  | Agronomy | COS | Cosmotology |
|  | $\begin{aligned} & \text { AGR } \\ & \text { AMH } \end{aligned}$ | American History | COT | Computer Theory |
| $\bigcirc$ | AML | American Literature | CPO | Comparative Politics |
|  | AMS ANS | American Studies | CPS | Comparative Policy Studies |
| - |  | Animal Science |  | (Multi-National) |
| - | ANT | Anthropology | CPT | Cardiopulmonary Technology |
| 0 |  | Applied Biology | CRM | Computer Resources/Management |
| 0 | ARB | Arabic Language | CRW | Creative Writing |
| (1) | ARA | Architecture | CTE | Clothing \& Textiles |
|  | ARE | Art Education | CYP | Community Psychology |
| $\bigcirc$ | ARH | Art History | CZE | Czech Language |
|  |  |  | CZT | Czech Literature in Translation |
| 을 | ARV | Arts, Vocational | CZW | Czech Literature (Writings) |
|  | ASC | Aeronautical Science |  |  |
|  |  | Animal Science - General | DAA | Dance Activities |
| (1) | ASH | Asian History | DAE | Dance Education |
| م | $\begin{aligned} & \text { ASI } \\ & \text { ASN } \end{aligned}$ | Astronomy - Instrumentation | DAN | Dance |
| E |  | Asian Studies | DAS | Dairy Science |
| E | AST | Astronomy | DEA | Dental Assisting |
| 2 | ATE | Animal Science Technology | DEC | Distributive Ed Coordinators |
| Z | ATF | Aviation Technology Flight | DEH | Dental Hygiene |
|  | ATM | Aviation Technology Maintenance | DEN | Dentistry |
| (1) | ATTAVM | Aviation Technology Theory | DEP | Developmental Psychology |
| $\stackrel{\square}{2}$ |  | Aviation Management | DES | Dental Support |
|  |  |  | DHE | Demography \& Human Ecology |
| $\bigcirc$ | BAN | Basic Clinical Clerkship | DTE | Dental Lab Technology |
| $\bigcirc$ | BCH | Biochemistry |  |  |
|  | BCNBCT | Building Construction |  |  |
| 0 |  | Building Construction Trades |  |  |
|  | BES | Behavioral Studies | EAB | Engineering: Aerospace |
| 3 | BMS | Basic Medical Sciences | EAS | Engineering: Chemical |
| (1) | BOT | Botany <br> Biological Science | ECI | Engineering: Civil |
| T | BTEBUL | Business Teacher Education | ECM | Engineering: Computer Mathematics |
| $\bigcirc$ |  |  | ECO | Economics |
|  |  |  | ECP | Economic Problems \& Policy |
|  | $\begin{aligned} & \text { CAP } \\ & \text { CBH } \end{aligned}$ | Computer Applications | ECS | Economics Systems |
|  |  | Comparative Psychology \& Animal Behavior | EDA | \& Development Education: Administration |
|  |  | Criminology \& Criminal Justice | EDE | Education: Elementary |
|  | CDA | Computer Design/Architecture | EDF | Education: Foundations |
|  | $\begin{aligned} & \text { CES } \\ & \text { CHD } \end{aligned}$ | Civil Engineering Structures | EDG | Education: General |
|  |  | Child Development | EDH | Education: Higher |
|  | CHI | Chinese Language | EDM | Education: Middle School |
|  | CHM | Chemistry | EDP | Educational Psychology |


| PREFIX | SUBJECT AREAS |
| :---: | :---: |
| EDS | Education: Supervision |
| EEC | Education: Early Childhood |
| EED | Education: Emotional Disorders |
| EEL | Engineering: Electrical |
| EER | Electrical/Electronics Repair |
| EES | Environmental Engineering Science |
| EEX | Education: Exceptional Child Core Competencies |
| EGC | Guidance \& Counseling |
| EGI | Education: Exceptional Child - Gifted |
| EGM | Engineering: Mechanical |
| EGN | Engineering: General |
| EHD | Education: Hard of Hearing \& Deaf |
| EIA | Educational: Industrial Arts |
| EIN | Engineering: Industrial |
| EIV | Education: Industrial/Vocational |
| ELD | Education: Specific Learning Disabilities |
| ELR | Engineering: Electrical Lab \& Related Areas |
| EMA | Engineering: Material |
| EMC | Engineering: Mechanical-Chemical |
| EME | Education: Technology \& Media |
| EML | Engineering: Mechanical |
| EMR | Education: Mental Retardation |
| EMT | Emergency Medical Technology |
| ENC | English Composition |
| ENG | English - General |
| ENL | English Literature |
| ENU | Engineering: Nuclear |
| ENV | Engineering: Environmental |
| ENY | Entomology |
| EOC | Engineering: Ocean |
| EPH | Education: Physical \& Multiple Handicapped |
| ESE | Education: Secondary |
| ESI | Engineering Systems - Industrial |
| ESL | English as a Second Language |
| ETC | Engineering Tech: Civil |
| ETD | Engineering Tech: Drafting |
| ETE | Engineering Tech: Electrical |
| ETG | Engineering Tech: General |
| ETI | Engineering Tech: Industrial |
| ETM | Engineering Tech: Mechanical |
| ETN | Electroencephalographic Tech |
| EUH | European History |
| EUS | European Studies |
| EVI | Education: Visually impaired-Blind |
| EVR | Environmental Studies |
| EVS | Environmental Science |
| EVT | Education: Vocational/Technical |
| EXP | Experimental Psychology |
| FAD | Family Development |
| FAM | Fashion Modeling |
| FFP | Fire Fighting \& Protection |
| FIL | Film |
| FIN | Finance |
| FLE | Foreign Language Education |
| FNR | Forestry \& Natural Resources |
| FOL | Foreign \& Biblical Languages |
| FOR | Forestry |
| FOS | Food Science |

## PREFIX SUBJECT AREAS

FOT Foreign \& Biblical Languages in Translation
Foreign \& Biblical Languages Comparative Literature
Fruit Crops
French Language
French Literature in Translation
French Literature (Writings)
Funeral Service Education
Food Service Systems
Golf Course Operations
Geography - Regional (Area)
General Business
Geography - Systematic
German Language
German Literature in Translation
German Literature (Writings)
Gerontology
Geophysical Fluid Dynamics
Geology
Graduate Medical Sciences
Greek Language
Greek Literature (Writings)
Health Care Administration
Hebrew
Home Economics Education
Health Education \& Safety
Hospitality, Food Tourism
Housing \& Home Design
History - General
Health, Leisure \& Physical Education
Home Management \& Equipment Home Economics - General Horticultural Sciences
Health Science
Humanities
Human Nutrition
Human Services
Icelandic Language
Icelandic Literature in Translation
Icelandic Literature (Writings)
Interdisciplinary Studies
Industrial Education - Applied Interior Design
Industrial \& Applied Psychology International Relations
Interdisciplinary Natural Science Italian Language Italian Literature in Translation Italian Literature (Writings)

Japanese Language
Japanese Literature (Writings)
Journalism

Landscape Architecture
Language Arts \& English Education
Latin American History
Latin American Studies
Latin (Language Study)

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ME

|  | PREFIX | SUBJECT AREAS |
| :---: | :---: | :---: |
|  | LAW | Law |
|  | LEA | Legal Assistant |
|  | LEI | Leisure |
|  | LIN | Linguistics |
|  | LIS | Library Science |
|  | LIT | Literatures |
|  | LNW | Latin Literature |
|  | MAA | Mathematics - Analysis |
|  | MAC | Mathematics: Calculus \& Precalculus |
| $\infty$ | MAD | Mathematics - Discrete |
| (1) | MAE | Mathematics Education |
| $\times$ | MAF | Marriage and Family |
| - | MAG | Mechanized Agriculture |
| (1) | MAN | Management |
| 2 | MAP | Mathematics - Applied |
| 0 | MAR | Marketing |
| - | MAS | Mathematics: Algebraic Structures |
| $\bigcirc$ | MAT | Mathematics |
|  | MCB | Microbiology |
| 2 | MEA | Medical Assisting Technology |
| 0 | MEL | Medicine Electives |
| - | MER | Mental Retardation |
| 0 | MET | Meteorology |
| (1) | MGF | Mathematics: General \& Finite |
|  | MHF | Mathematics: History \& Foundations |
|  | MHT | Mental Health Technology |
|  | MIS | Military Science |
| O) | MKA | Marketing Applications |
| E | MLS | Medical Laboratory Science |
| 2 | MMC | Mass Media Communication |
| (1) | MOB | Molecular Biophysics |
| 0 | MRE | Medical Records |
| E | MTB | Mathematics: Technology \& Business |
| 2 | MTG | Mathematics: Topology \& Geometry |
| - | MTR | Metal Trades |
| (1) | MUC | Music: Composition |
| 9 | MUE | Music: Education |
| 2 | MUG | Music: Conduction |
| 0 | MUH | Music: History/Musicology |
|  | MUL | Music: Music Literature |
| 0 | MUM | Music: Commercial |
|  | MUN | Music: Musical Ensembles |
| ${ }^{0}$ | MUO | Music: Opera/Musical Theatre |
| . | MUR | Music: Church Music |
| 3 | MUS | Music |
| (1) | MUT | Music: Theory |
| $\pm$ | MUY | Music: Therapy |
| T | MVB | Music: Applied Brasses |
| $\stackrel{\sim}{0}$ | MVK | Music: Applied - Keyboard |
| $($ | MVO | Music: Applied - Other Instruments |
|  | MVP | Music: Applied - Percussion |
|  | MVS | Music: Applied - Strings |
|  | MVV | Music: Applied - Voice |
|  | MVW | Music: Applied - Woodwinds |
|  | NMT | Nuclear Medical Technology |
|  | NSC | Naval Science |
|  | NUR | Nursing |
|  | NUS | Nursing Support |
|  | NUU | Nursing Universals |

## PREFIX SUBJECT AREAS

OCB
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PCB
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PEM
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PEP
PEQ
PET
PHA
PHH
PHI
PHM
PHP
PHS Physics - Specialized
PHT Physical Therapy
PHY Physics
PLP Plant Pathology
PLS Plant Science
PLT Polish Literature in Translation
PLW Polish Literature (Writings)
PMA Pest Management
POL Polish Language
POR Portuguese Language
POS Political Science
POT Political Theory
POW Portuguese Literature (Writings)
PPE Psychology of Personality
PRT Portuguese in Translation
PSB Psychobiology
PSC Physical Sciences
PSE Poultry Science
PSY Psychology
PUP Public Policy
PUR Public Relations
QMB Quantitative Methods in Business
RAT Radiation Therapy
REA Reading
RED Reading Education

PREFIX SUBJECT AREAS
REE
Real Estate
REL Religion
RET Respiratory Therapy
RMI Risk Management \& Insurance
RHT Radiation Health Technology
ROT Reactor Operator Technology
RTE Radiologic Technology
RTV Radio - Television
RUS Russian Language
RUT Russian Literature in Translation
RUW
SAN
SCE
SCW
SEC
SED
SES
SLL
SLW
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SON Sonagraphy: Diagnostic Ultrasound
SOP
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SOW
SPA
SPC
SPN
SPS
SPT Spanish Literature in Translation
SPW Spanish Literature (Writings)

## PREFIX SUBJECT AREAS

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URP
URS
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ZOO

Social Studies Education
Social Sciences - Interdisciplinary
Statistics
Student Development
Swahili Language
Swahili Literature in Translation
Theatre
Theatre Production \& Administration
Theatre Performance \& Performance Training
Transportion
Teaching English as a Second Language
Transportation \& Traffic Engineering

Urban \& Regional Planning Urban \& Regional Studies

Vegetable Crops
Veterinary Medicine
Veterinary Science
Visual Communication
Wildlife Science
World History
Women's Studies
Zoology

# FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM 

# CROSS REFERENCE TABLE FLORIDA INTERNATIONAL UNIVERSITY TO STATEWIDE COURSE PREFIX and NUMBER 

This catalog incorporates changes in the Florida International University curriculum as of February, 1978. Subsequent changes will be incorporated into supplimentary publications available from the office of Student Academic Services.

New
Statewide
Prefix \&
Number

ACC 300 ACC 301 ACC 401 ACC 402 ACC 403 ACC 405 ACC 406 ACC 407 ACC 408 ACC 412 ACC 413 ACC 414 C ACC 417 ACC 419 ACC 424 ACC 425 ACC 493 ACC 497 ACC 501 ACC 502 ACC 503 ACC 506 ACC 508 ACC 512 ACC 513 ACC 517 ACC 602
ACC 603
ACC 606
ACC 607 ACC 608C ACC 610 ACC 611 ACC 612 ACC 613 ACC 614 ACC 615 ACC 616 ACC 620 ACC 621
ACC 622
ACC 623
ACC 624
ACC 3300
ACC 3882
ACC 4101
ACC 4121 ACC 4201 ACC 4301 ACC 4501 ACC 4601 ACC 4731 ACC 4648 ACC 4548 ACC 4522 ACC 4803 ACC 4271 ACC 4248 ACC 4348 ACC 4905 ACC 4930 ACC 5311 ACC 5111 ACC 5131 ACC 5865 ACC 5734 ACC 5611 ACC 5511 ACC 5211 ACC 6735 ACC 6745 ACC 6411 ACC 6391 ACC 6845 ACC 6291 ACC 6932 ACC 6651 ACC 6512 ACC 6531 ACC 6553 ACC 6275 ACC 6554 ACC 6555 ACC 6556 ACC 6557 ACC 6558

Current FIU Prefix \& Number

ACC 625 ACC 626 ACC 630 ACC 631 ACC 693 ACC 695 ACC 697 AIS 301C AIS 302C AIS 401C AIS 402C ANT 300C ANT 301 ANT 302 ANT 303C ANT 304 ANT 305 ANT 311C ANT 313C ANT 325 ANT 326 ANT 327 ANT 328 ANT 335 ANT 337 ANT 338 ANT 355 ANT 356 C ANT 365 ANT 366 ANT 370C ANT 385 ANT 386C ANT 400 ANT 401 ANT 403 ANT 405C ANT 411 ANT 412 ANT 413 C ANT 415 ANT 418 C ANT 420
New
Statewide
Prefix \&
Number

ACC 6559 ACC 6582 ACC 6822
ACC 6832 ACC 6907
ACC 6910
ACC 6935 AFR 3201 C AFR 3210 C AFR 4220 C AFR 4230 C SSI 3010 ANT 3000 ANT 3500 ANT 3144 ANT 3004 ANT 3512 ANT 3402 ANT 3262 ANT 3422 ANT 3241 ANT 3251 ANT 3476 ANT 3442 ANT 3432 LIN 3642 ANT 3462 ANT 3542 ANT 3403 ANT 3302 ANT 3435 ANT 3425 ANT 3733 ANT 4705 ANT 4723 ANT 4451 ANT 4273 ANT 4452 ANT 4453 ANT 3263 ANT 4007 ANT 4224 ANT 4340
Current

[^0]ANT 421 ANT 4332
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ANT 423 ANT 4315
ANT 424 ANT 4314
ANT 425 ANT 4211
ANT 426 ANT 4352
ANT 427 ANT 4360
ANT 428 ANT 4361
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ANT 430 C
ANT 431C
ANT 432C
ANT 433C
ANT 434 C
ANT 435 C
ANT 437C
ANT 438 C
ANT 439 C
ANT 440 C
ANT 444C
ANT 446
ANT 450 C
ANT 455C
ANT 456C
ANT 461 C
ANT 466
ANT 467C
ANT 469 C
ANT 470 C
ANT 471 C
ANT 472 C
ANT 473C
ANT 474 C
ANT 475
ANT 485
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ANT 4328
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ANT 5468
ANT 5908
ANT 5915

## Current FIU Prefix \& Number

ARH 416 C ARH 435 C ARH 455C ARH 466C ARH 467 ARH 475 ARH 476 C ARH 477C ARH 478 ARH 485 ARH 495 ARH 516 ARH 535 ARH 555 ARH 566 ARH 567 ARH 576 ARH 577 ARH 585 ARH 595 ASC 301 ASC 302 ASC 303 ASC 304

## BEP 401 <br> BEP 402C

BEP 403
BEP 404C
BEP 405C
BEP 425
BEP 426
BEP 427
BEP 430C BEP 493C BEP 497C BEP 498C BSC 300C BSC 301D BSC 301L BSC 302C BSC 302L BSC 305C BSC 306C BSC 308 BSC 310L BSC 320C BSC 320L BSC 329C BSC 329L BSC 331C BSC 331L BSC 332C BSC 334C BSC 335C BSC 336C BSC 336L
BSC 337C BSC 338C BSC 338L BSC 341
BSC 341 C

## New Statewide Prefix \& Number

ARH 4552 ARH 4170
ARH 4301
ARH 4431
ARH 4610
ARH 4470
ARH 4410
ARH 4800
ARH 4931
ARH 4905
ARH 4910
ARH 5555
ARH 5172
ARH 5303
ARH 5432
ARH 5615
ARH 5412
ARH 5812
ARH 5907
ARH 5913
ANT 3086
SOC 3610
SOC 3500 SSI 3303

MAN 4731
MAN 4711
MAN 4741
SSI 4125
IDS 4154
PUR 4000
PUR 4800
PUR 4934
MAN 4130
MAN 4905
MAN 4934
MAN 4910
BSC 3023
BCH 3930
BCH 3033L
PCB 3023
PCB 3023L
BSC 3033
APB 3253
OCB 3010
MCB 3013L
BOT 3663
BOT 3663L
BOT 3935
BOT 3935
ZOO 3203
ZOO 3203L
ENY 3004
ZOO 3423
ZOO 3433
ZOO 3603
ZOO 3603L
ZOO 3553
ZOO 3753
ZOO 3753L
PCB 3513L
PCB 3513

Current FIU
Prefix \& Number

BSC 342 BSC 348 BSC 349 BSC 350C BSC 350L BSC 351C BSC 351L BSC 355C BSC 355D BSC 355L BSC 356C BSC 356D BSC 356L BSC 357 C BSC 357L BSC 360C BSC 362C BSC 362L BSC 364C BSC 365C BSC 372C BSC 372 L BSC 373 BSC 373L BSC 374
BSC 376C BSC 380
BSC 381C BSC 401C BSC 402C BSC 403C BSC 420
BSC 423C
BSC 423L
BSC 425C BSC 425L BSC 427C BSC 427L BSC 451 C BSC 480 BSC 481 BSC 489C BSC 490 BSC 501 BSC 501L BSC 502C BSC 504C BSC 507C BSC 508C BSC 509C BSC 511 BSC 511L BSC 521L BSC 542C BSC 545C BSC 545L BSC 550C BSC 552C BSC 552L BSC 560 BSC 560L BSC 570C
New
Statewide
Prefix \&
Number

PCB 3510C ZOO 3513C PCB 3873C PCB 3703
PCB 3703L
PCB 3704
PCB 3704L
ZOO 3733
ZOO 3733L ZOO 3733L ZOO 3734
ZOO 3734L ZOO 3734L ZOO 3743
ZOO 3743L
PCB 3043
BOT 3353
BOT 3353L
BOT 3823
BOT 3503
PCB 3702 PCB 3702 L ZOO 3731C ZOO 3731L PCB 3703C PCB 3233 BSC 3913 BSC 3933 PCB 4254 PCB 4254L PCB 4024 ZOO 5334 PCB 4754 PCB 4754L PCB 4724 PCB 4724L PCB 4725 PCB 4725L PCB 4701 BSC 4914 BSC 3934 ZOO 4543 BSC 5931 ZOO 5266C ZOO 5266L APB 5933 PCB 5205 BCH 5315 BCH 5213 BCH 5345 MCB 5505 MCB 5505L PCB 5615C PCB 5259 BOT 5575 BOT 5575L ZOO 5745 PCB 5835C PCB 5835L OCB 5635 PCB 5316L BOT 5665

| Current | New |
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| FIU | Statewide |
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BSC 570L BSC 590C BSC 601C BSC 665C BSC 680L BUA 300C BUA 302
BUA 303
BUA 305 BUA 306 BUA 307 BUA 309 BUA 311 C BUA 314 BUA 408 BUA 414 BUA 494 BUA 496

## CHE 301

 CHE 301L CHE 302 CHE 302L CHE 305 CHE 305L CHE 306 CHE 306L CHE 308 CHE 308L CHE 309 CHE 309L CHE 311 CHE 3111 CHE 312 CHM 3120 CHE 312L CHM 3120L CHE 321 CHE 322 CHE 323 CHE 325L CHE 326L CHE 327L CHE 332LCHE 403
CHE 404
CHE 405
CHE 406
CHE 409L
CHE 412
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BOT 5665L BSC 5931 BCH 6506 BOT 6536 BSC 6916 ACC 3300 MAN 3503 MAR 3023 QMB 3150 CIS 3000 ACC 3303 MAN 3010 ECO 3202 MAN 3701 MAN 4720 MAN 4701 MAR 4254 MAN 4722

CHM 3210 CHM 3210L CHM 3211 CHM 3211L CHM 3045 CHM 3045L CHM 3046 CHM 3046L CHM 3030 CHM 3030L

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CHM 4130
CHM 4130L CHM 4230L CHM 4320L CHM 4610 CHS 4110 CHS 4100 L CHM 5380 CHM 4310 CHM 4580 CHM 4680 CHM 4180 CHM 4910L CHM 4911L CHM 4912L

|  | Current <br> FIU <br>  <br> Number | New Statewide Prefix \& Number | Current <br> FIU <br>  <br> Number | New Statewide Prefix \& Number |  | New Statewide Prefix \& Number |
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|  | CHE 495 | CHM 4930 | COM 410 | MMC 4200 | CRJ 625C | CCJ 6495 |
|  | CHE 507 | CHM 5440 | COM 425 | PUR 4000 | CRJ 626C | CCJ 6665 |
|  | CHE 521C | CHM 5250 | COM 426 | PUR 4800 | CRJ 627C | CCJ 6285 |
|  | CHE 524C | CHM 5280 | COM 427 | PUR 4934 | CRJ 628C | CCJ 6525 |
|  | CHE 526C | CHM 5260 | COM 470 | VIC 4300 | CRJ 629C | CCJ 6050 |
|  | CHE 532C | CHM 5650 | COM 471 | RTV 4205 | CRJ 697C | CCJ 6971 |
|  | CHE 540 | CHM 5517 | COM 480 | JOU 4104 | CSN 300 | ETC 3321L |
|  | CHE 581 | CHM 5381 | COM 490 | MMC 4945 | CSN 301 | BCN 3210C |
|  | CHE 583 | CHM 5581 | COM 500 | JOU 5806 | CSN 304 | ARC 3466 |
|  | CHE 585 | CHM 5681 | COT 300 | ETE 3620C | CSN 305 | ETC 3322C |
|  | CHE 587 | CHM 5181 | COT 302 | ETE 3650C | CSN 306 | BCN 3240 |
|  | CLT 301 | CTE 3312 | COT 304 | ETE 3661C | CSN 307 | ETC 3323C |
|  | CLT 302 | CTE 3852 | COT 404 | ETE 4621 | CSN 320 | BCN 3611 |
|  | CLT 325 | CTE 3602 | COT 406 | ETE 4669 | CSN 322 | BCN 3720 |
| 0 | CLT 335 | CTE 3310 | CRJ 300 | CCJ 3020 | CSN 326 | BCN 3762 |
| 0 | CLT 337 | CTE 3401 | CRJ 301 | CCJ 3600 | CSN 328 | ARC 3586 |
| 3 | CLT 401 | CTE 4821 | CRJ 302 | CCJ 3100 | CSN 329 | HHD 3151 |
| (1) | CLT 402 | CTE 4890 | CRJ 303 | CCJ 3290 | CSN 330 | BCN 3703 |
|  | CLT 403 | CTE 4827 | CRJ 304 | CCJ 3270 | CSN 331 | BCN 3640 |
| T | CLT 425 | CTE 4741 | CRJ 306C | CCJ 3300 | CSN 332 | BCN 3740 |
| © | CLT 435 | CTE 4340 | CRJ 307C | CCJ 3700 | CSN 340 | IND 3020 |
| 0 | CLT 437 | CTE 4761 | CRJ 308 | CCJ 3340 | CSN 345 | ETD 3020 |
| - | CLT 438 | CTE 4352 | CRJ 309C | CCJ 3320 | CSN 350 | BCN 3402C |
|  | CLT 440 | CTE 4880 | CRJ 310C | CCJ 3341 | CSN 351 | ETG 3502 |
|  | CLT 444 | CTE 4421 | CRJ 311 | CCJ 3450 | CSN 352 | ETG 3530 |
|  | CLT 495 | CTE 4905 | CRJ 312 | CCJ 3460 | CSN 352L | ETG 3520L |
|  | CLT 497 | CTE 4930 | CRJ 313 | CCJ 3470 | CSN 353 | ETC 3410 |
| L | CLT 534 | CTE 5746 | CRJ 314 | CCJ 3291 | CSN 354 | ETC 3220C |
|  | CLT 535C | CTE 5345 | CRJ 315C | CCJ 3461 | CSN 354L | ETC 3210L |
|  | CLT 536 | CTE 5422 | CRJ 321 | CCJ 3530 | CSN 357 | ETC 3420 |
|  | CLT 537 | CTE 5930 | CRJ 395 | CCJ 3934 | CSN 365C | CAP 3210 |
| $\pm$ | CLT 538 | CTE 5355 | CRJ 403 | CCJ 4400 | CSN 370 | ARC 3210 |
| 0 | CLT 595 | CTE 5905 | CRJ 404 | CCJ 4630 | CSN 372C | BCN 3706 |
| C | COE 301 | HUM 3949 | CRJ 406 | CCJ 4130 | CSN 373 | IND 3200 |
| $(1)$ | COE 303 | SSI 3949 | CRJ 408C | CCJ 4281 | CSN 375 | ARC 3450 |
| $\square$ | COE 311 | EVR 3949 | CRJ 410 | CCJ 4280 | CSN 376 | ARC 3484C |
| $\pm$ | COE 325 | ACC 3949 | CRJ 411 | CCJ 4661 | CSN 377C | BCN 3761 |
| (1) | COE 326 | FIN 3949 | CRJ 412 | CCJ 4662 | CSN 380C | BCN 3257C |
| ロ | COE 330C | MAN 3949 | CRJ 413C | CCJ 4663 | CSN 383 | IND 3210 |
|  | COE 340C | ETG 3949 | CRJ 414C | CCJ 4462 | CSN 385 | ARC 3786 |
|  | COE 350 | CCJ 3949 | CRJ 421 | CCJ 4330 | CSN 400 | ETC 4530 |
|  | COE 351C | HOE 3949 | CRJ 422 | CCJ 4440 | CSN 402C | ETC 4205 |
|  | COE 353 | SOW 3949 | CRJ 430 | CCJ 4250 | CSN 405C | ETC 4222C |
|  | COE 401 | HUM 4949 | CRJ 440 | CCJ 4940 | CSN 407 | ARC 4335C |
| O | COE 403 | SSI 4949 | CRJ 495 | CCJ 4900 | CSN 411 | ETC 4541 |
|  | COE 411 | EVR 4949 | CRJ 496 | CCJ 4910 | CSN 413 | ETC 4502 |
|  | COE 425 | ACC 4949 | CRJ 600C | CCJ 6055 | CSN 426 | BCN 4741 |
|  | COE 426 | FIN 4949 | CRJ 601 | CCJ 6477 | CSN 428C | BCN 4473 |
|  | COE 430C | MAN 4949 | CRJ 602C | CCJ 6476 | CSN 429 | BCN 4260 |
|  | COE 440C | ETG 4949 | CRJ 603 | CCJ 6706 | CSN 430 | HHD 4420 |
|  | COE 450 | CCJ 4949 | CRJ 604C | CCJ 6709 | CSN 450 | BCN 4452 |
|  | COE 451C | HOE 4949 | CRJ 605C | CCJ 6467 | CSN 451 | ETC 4440 |
|  | COE 453 | SOW 4949 | CRJ 606C | CCJ 6457 | CSN 451C | BCN 4431 |
|  | COM 320 | JOU 3300 | CRJ 607C | CCJ 6456 | CSN 452 | ETC 4460 |
|  | COM 321 | JOU 3109 | CRJ 608 | CCJ 6486 | CSN 455 | ETC 4450C |
|  | COM 350 | JOU 3200 | CRJ 610C | CCJ 6716 | CSN 457 | ARC 4590C |
|  | COM 351 | JOU 3209 | CRJ 611C | CCJ 6485 | CSN 465 | ETC 4429 |
|  | COM 355 | JOU 3202 | CRJ 620C | CCJ 6945 | CSN 470C | BCN 4707 |
|  | COM 380 | JOU 3100 | CRJ 621 | CCJ 6468 | CSN 471 | ARC 4336 |
|  | COM 385 | RTV 3100 | CRJ 622C | CCJ 6635 | CSN 473 | IND 4220 |
|  | COM 390 | JOU 3600 | CRJ 623C | CCJ 6105 | CSN 474 | IND 4221 |
|  | COM 400 | MMC 4602 | CRJ 624C | CCJ 6365 | CSN 475 | IND 4224 |


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| CSN 482 | ARC 4270 |
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| CSN 512 | ETC 5514 |
| CSN 513C | ETC 5507C |
| CSN 556 | ETC 5470 |
| CSN 557 | ETC 5422C |
| CSN 564 | ETC 5950 |
| CSN 565C | CAP 5211 |
| CSN 570 | ARC 5916 |
| CSN 572C | BCN 5022 |

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AST 3213
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MAE 6305
SCE 6306
MUE 6305
ARE 6304
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ECO 3101
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ECO 3432
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ECS 4432
ECS 4433
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ECO 4623
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ECP 4314

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|  | ECO 422 | ECP 4433 | EDS 616 | MAE 6899 | EEL 411 | SSE 4312 |
|  | ECO 424 | ECP 4403 | EDS 617 | SCE 6635 | EEL 413 | MAE 4312 |
|  | ECO 425 | ECO 4504 | EDS 619 | SSE 6633 | EEL 414 | SCE 4310 |
|  | ECO 426 | ECO 4224 | EDS 625 | ESE 6215 | EEL 425 | EDE 4943 |
|  | ECO 428 | ECP 4203 | EDS 628 | ESE 6425 | EEL 451 | FLE 4151 |
|  | ECO 429 | ECP 4222 | EDS 629 | SSE 6939 | EEL 452C | LAE 4810 |
|  | ECO 430 | ECO 4401 | EDS 639 | LAE 6935 | EEL 453 | FLE 4871 |
|  | ECO 431 | ECO 4422 | EDS 649 | SCE 6933 | EEL 454 | FLE 4870 |
|  | ECO 432 | ECO 4134 | EDS 695 | ESE 6947 | EEL 518 | LAE 5414 |
|  | ECO 434 | ECP 4534 | EDS 696 | ESE 6935 | EEL 525 | MAE 5555 |
|  | ECO 435 | ECP 4515 | EDS 697 | ESE 6925 | EEL 595 | EDE 5905 |
|  | ECO 436 | ECO 4225 | EDU 305C | EDF 3827 | EEL 605 | EDE 6205 |
|  | ECO 437 | ECO 4701 | EDU 311 | EDG 3321 | EEL 606 | EDE 6225 |
|  | ECO 438 | ECO 4703 | EDU 311L | EDG 3321L | EEL 607 | SSE 6355 |
| (1) | ECO 439 | ECO 4713 | EDU 312 | EDG 3322 | EEL 608 | LAE 6355 |
| 1 | ECO 440 | ECO 4733 | EDU 505 | EDF 5287 | EEL 609 | RED 6155 |
| ) | ECO 441 | ECP 4013 | EDU 506 | EDG 5325 | EEL 616 | SCE 6315 |
| 3 | ECO 444 | ECP 4003 | EDU 507 | EDF 5481 | EEL 617 | MUE 6316 |
| 3 | ECO 454 | ECS 4403 | EDU 508 | EDF 5955 | EEL 618 | ARE 6315 |
| + | ECO 455 | ECS 4403 | EDU 509 | EDF 5710 | EEL 695 | EDE 6948 |
| $\pm$ | ECO 456 | ECS 4404 | EDU 510 | EDF 5724 | EEL 696 | EDE 6930 |
|  | ECO 460 | ECO 4902 | EDU 514 | EDF 5720 | EEL 697 | EDE 6925 |
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|  | ECO 462C | ECO 4902 | EDU 516 | EME 5315 | EET 310 | ETE 3034C |
|  | ECO 463C | ECO 4906 | EDU 517 | EDF 5430 | EET 312 | ETE 3101 |
|  | ECO 467 | ECP 4004 | EDU 518 | EDF 5216 | EET 313C | ETE 3030L |
|  | ECO 507 | ECO 5216 | EDU 595 | EDF 5905 | EET 314 | BCN 3521 |
|  | ECO 510 | ECS 5025 | EDU 605 | EDF 6486 | EET 316 | ETE 3121C |
| $\Perp$ | ECO 520 | ECP 5605 | EDU 606 | EDF 6215 | EET 317C | ETE 3565C |
|  | ECO 531 | ECO 5423 | EDU 697C | EDG 6925 | EET 318 | ETE 3526C |
|  | ECO 560 | ECO 5906 | EEC 306 | EEX 3010C | EET 320 | ETE 3323C |
|  | ECO 561C | ECO 5906 | EEC 309 | SPA 3000 | EET 328 | ETE 3142 |
| (1) | ECO 562C | ECO 5906 | EEC 315 | EEX 3221 | EET 329 | ETE 3124C |
| 0 | ECO 563C | ECO 5906 | EEC 316 | EEX 3202 | EET 340 | ETE 3421C |
| E | ECO 606 | ECP 6704 | EEC 405 | EEX 4241 | EET 342 | ETE 3422 |
| (1) | ECO 626 | ECO 6236 | EEC 406 | EEX 4242C | EET 415 | ETE 4565C |
| (1) | ECO 660 | ECO 6938 | EEC 407 | EMR 4360 | EET 420 | ETE 4324C |
| (1) | ECO 665 | ECO 6115 | EEC 408 | ELD 4322C | EET 422 | ETE 4325C |
| (1) | ECO 666 | ECO 6938 | EEC 409 | EED 4227C | EET 425C | ETE 4567C |
| 0 | EDA 605 | EDA 6061 | EEC 411 | EEX 4601 | EET 428 | ETE 4123C |
| - | EDA 606C | EDA 6510 | EEC 412 | EEX 4611 | EET 430 | ETE 4161C |
| 0 | EDA 607C | EDA 6530 | EEC 425 | EEX 4861 | EET 440 | ETE 4426C |
| $\mathscr{O}$ | EDA 608 | EDS 6050 | EEC 498C | EEX 4905 | EET 466 | ETE 4170C |
| - | EDA 609 | EDG 6250 | EEC 608 | EEX 6051 | EET 468 | ETE 4665C |
|  | EDA 615 | EDG 6285 | EEC 610C | EEX 6612 | EIA 403 | EIA 4042 |
|  | EDA 616 | EDS 6115 | EEC 611C | EEX 6227 | EIA 405 | EIA 4360 |
|  | EDA 617 | EDA 6223 | EEC 612C | EEX 6106 | EIA 425C | EIA 4941C |
|  | EDA 695 | EDA 6943 | EEC 613C | EEX 6846 | EIA 528 | EIA 5811C |
|  | EDA 696 | EDA 6930 | EEC 614C | EEX 6736 | EIA 595 | EIA 5905 |
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|  | EDS 401 | RED 4325 | EEC 617 | EED 6226 | EMU 425 | MUE 4940 |
|  | EDS 405 | LAE 4943 | EEC 695 | EEX 6863 | EMU 595 | MUE 5907 |
|  | EDS 406 | MAE 4333C | EEC 696C | EED 6937 | EMU 616C | MUE 6349 |
|  | EDS 407 | FLE 4375 | EEC 697C | EEX 6927 | EMU 617C | MUE 6938 |
|  | EDS 408 | SCE 4330 | EEC 698C | EEX 6906 | EMU 697C | MUE 6925 |
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|  | EDS 417 | LAE 4464 | EEL 318 | ARE 3313 | ENG 301 | LIT 3510 |
|  | EDS 425 | LAE 4942 | EEL 319 | MUE 3313 | ENG 302 | LIT 3510 |
|  | EDS 595 | ESE 5908 | EEL 401 | RED 4310 | ENG 303 | LIT 3510 |
|  | EDS 609 | MAE 6336 | EEL 402 | LAE 4314 | ENG 304 | LIT 3510 |
|  | EDS 614 | LAE 6339 | EEL 403 | RED 4311 | ENG 305 | LIT 3510 |

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|  | EVO 504 | EVT 5460 | FIA 437C | ART 4151 C | FRE 303 | FRE 3200 |
|  | EVO 506 | EVT 5669 | FIA 445C | ART 4402C | FRE 305 | FRE 3201 |
|  | EVO 507 | EVT 5168 | FIA 455 | ART 4604C | FRE 306 | FRW 3820 |
|  | EVO 509 | EVT 5078 | FIA 458 | ART 4632C | FRE 307 | FRE 3780 |
|  | EVO 516 | EVT 5067 | FIA 465 | ART 4114 C | FRE 308C | FRE 3705 |
|  | EVO 517 | EVT 5265 | FIA 475 | ART 4652C | FRE 309C | FRE 3700 |
|  | EVO 526 | EVT 5461 | FIA 485 | ART 4906C | FRE 315 | FRT 3810 |
|  | EVO 527 | EVT 5766 | FIA 490L | ART 4955C | FRE 325 | FRE 3420 |
|  | EVO 595 | EVT 4905 | FIA 495 | ART 4910 | FRE 326 | FRE 3421 |
|  | EVO 597 | EVT 5925 | FIA 515 | ART 5340C | FRE 327 | FRE 3415 |
|  | EVO 606C | EVT 6264C | FIA 516 | ART 5341 C | FRE 328 | FRT 3800 |
|  | EVO 616 | EVT 6760 | FIA 525 | ART 5580C | FRE 335C | FRE 3840 |
|  | EVO 695C | EVT 6946 | FIA 535 | ART 5730C | FRE 336C | FRE 3820 |
|  | EVO 696 | EVT 6930 | FIA 537 | ART 5159C | FRE 355 | FRW 3580 |
|  | EVO 697C | EVT 6925 | FIA 545C | ART 5403C | FRE 356 | FRW 3582 |
| (1) | EVR 301 | EVR 3011 | FIA 555 | ART 5620C | FRE 357 | FRW 3584 |
| 0 | EVR 302 | EVR 3012 | FIA 565 | ART 5125C | FRE 359 | FRW 3520 |
|  | EVR 303 | EVR 3013 | FIA 575 | ART 5660C | FRE 360 | FRE 3500 |
| 3 | EVR 312 | EVR 3931 | FIA 585 | ART 5907 | FRE 365C | FRT 3110 |
| (1) | EVR 401 | EVR 4021 | FIA 595 | ART 5910 | FRE 397 | FRW 3930 |
| \% | EVR 402 | EVR 4022 | FIN 301 | FIN 3403 | FRE 398 | FRW 3905 |
|  | EVR 412 C | MET 4701 | FIN 310 | FIN3100 | FRE 399 | FRE 3270 |
| $\infty$ | EVR 421 | EVR 4211 | FIN 405 | FIN 4404 | FRE 405 | FRW 4590 |
|  | EVR 431 | EVR 4231 | FIN 406 | FIN 4419 | FRE 406 | FRW 4390 |
|  | EVR 441 | EVR 4311 | FIN 410 | FIN 4313 | FRE 407 | FRW 4790 |
|  | EVR 491 | EVR 4905 | FIN 415 | FIN 4303 | FRE 411 | FRE 4013 |
|  | EVR 492 | EVR 4905 | FIN 416 | FIN 4324 | FRE 428 | FRT 4801 |
|  | EVR 511 | EVR 5236 | FIN 420 | FIN 4344 | FRE 438 | FRW 4810 |
| 4. | EVR 512 | EVR 5936 | FIN 425 | FIN 4502 | FRE 455 | FRE 4935 |
| $\underline{1}$ | EVR 515 | EVR 5061 | FIN 426 | FIN 4504 | FRE 460 | FRE 4501 |
|  | EVR 536 | EVR 5141 | FIN 435 | FIN 4713 | FRE 465C | FRW 4152 |
|  | EVR 581 | EVR 5935 | FIN 455 | FIN 4611 | FRE 475C | FRE 4791 |
| (1) | EVR 591 | EVR 5907 | FIN 493 | FIN 4904 | FRE 476C | FRE 4800 |
| 0 |  |  | FIN 497 | FIN 4934 | FRE 478C | FLE 4823 |
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| (1) | FCD 305C | FAD 3232 | FIN 507 | FIN 5314 | FRE 488 | FRE 4012 |
| 2 | FCD 401 | CHD 4230 | FIN 508 | FIN 5515 | FRE 497 | FRW 4930 |
| (1) | FCD 405 | FAD 4230 | FIN 515 | FIN 5305 | FRE 498 | FRW 4905 |
| ) | FCD 501 | CHD 5264 | FIN 515 | FIN 5714 | FRE 499 | FRE 4470 |
| $\sim$ | FCD 505 | FAD 5260 | FIN 516 | FIN 5326 | FRE 501 | FRE 5060 |
| 0 | FCD 515C | FAD 5255 | FIN 517 | FIN 5223 | FRE 502 | FRE 5061 |
|  | FCD 595 | FAD 5450 | FIN 520 | FIN 5345 | FRE 505 | FRE 5730 |
| 0 | FCD 596 | FAD 5900 | FIN 545 | FIN 5473 | FRE 506 | FRW 5395 |
| - | FIA 305C | ART 3202C | FIN 555 | FIN 5605 | FRE 510C | FRW 5150 |
|  | FIA 306C | ART 3203C | FIN 605 | FIN 6426 | FRE 515 | FRW 5934 |
| 0 | FIA 315 | ART 3310C | FIN 615 | FIN 6246 | FRE 527 | FRE 5416 |
|  | FIA 316 | ART 3331C | FIN 616 | FIN 6315 | FRE 528 | FRT 5802 |
|  | FIA 325 | ART 3510 C | FIN 617 | FIN 6316 | FRE 556C | FRT 5118 |
|  | FIA 335 | ART 3702C | FIN 618 | FIN 6325 | FRE 570 | FRW 5938 |
|  | FIA 337 | ART 3150C | FIN 625 | FIN 6516 | FRE 579C | FRE 5565 |
|  | FIA 345 | ART 3401C | FIN 626 | FIN 6525 |  |  |
|  | FIA 355 | ART 3601C | FIN 635 | FIN 6716 |  |  |
|  | FIA 357 | ART 3630C | FIN 640 | FIN 6436 | GER 301 | GER 3120 |
|  | FIA 358 | ART 3631C | FIN 645 | FIN 6806 | GER 302 | GER 3121 |
|  | FIA 361 | ART 3111C | FIN 646 | FIN 6456 | GER 303 | GER 3200 |
|  | FIA 375 | ART 3651C | FIN 655 | FIN 6636 | GER 303 | GER 3122 |
|  | FIA 385 | ART 3904 | FIN 693 | FIN 6906 | GER 304 | GER 3201 |
|  | FIA 395 | ART 3905 | FIN 695 | FIN 6915 | GER 305C | GER 3300 |
|  | FIA 415 | ART 4320C | FIN 697 | FIN 6936 | GER 325 | GER 3420 |
|  | FIA 416 | ART 4332C | FRE 301 | FRE 3120 | GER 365C | GET 3100 |
|  | FIA 425 | ART 4532C | FRE 302 | FRE 3121 | GER 497C | GER 4930 |
|  | FIA 435 | ART 4703C | FRE 303 | FRE 3122 | GER 498C | GER 4905 |


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GER 501C GER 5060 GER 502C GER 5061

HCM 413 HCA 4710
HCM 414 HCA 4111
HCM 418 HCA 4203
HCM 419 HCA 4711
HCM 517 HCA 5505
HCM 523 HCA 5135
HCM 624 HCA 6136
HCM 631C HCA 6431
HCM 651 HCA 6510
HCM 670 HCA 6301
HCM 671 HCA 6302
HCM 685 HCA 6850
HCM 689 HCA 6101
HCM 696 HCA 6811
HEB 301C HEB 3110
HEB 302C HEB 3111
HEB 303C HEB 3112
HEB 304 HEB 3200
HEB 305 HEB 3201
HED 405 HES 4303
HED 407 HES 4001
HED 411 HES 4160
HED 425 HES 4940
HED 505 HES 5205
HED 506 HES 5327
HED 507 HES 5326
HED 595 HES 5908
HED 695 HES 6943
HED 697 HES 6928
HEE 305 HEE 3302
HEE 405
HEE 406
HEE 425
HEE 495C
HEE 505
HEE 506C
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HEE 515C
HEE 516C
HEE 551
HEE 595C
HEE 596C
HEE 605
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HEE 607
HEE 696
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HIS 313
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HIS 322 HIS 325

HEE 4104
HEE 4944
HEE 4941
HOE 4940
HEE 5335
HEE 5365
HEE 5360
HEE 5362
HEE 5363
HEE 5364
HEE 5361
HEE 6551
HEE 5905
HEE 5927
HEE 6915
HEE 6126
HEE 6943
HEE 6937
HIS 3001
HIS 3308
EDF 3521
EUH 3100
EUH 3420
EUH 3186
EUH 3142
EUH 3452
EUH 3460
AMH 3570
AMH 3440
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Prefix \& Number

HIS 326
HIS 327
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## New Statewide Prefix \& Number

HIS 3244
AMH 3130
AMH 3170
AMH 3354
AMH 3355
AMH 3251
AMH 3270
AMH 3275
AMH 3500 WOH 3244 EUH 3601 EUH 3611 EUH 3203 EUH 3570 WOH 3283 WOH 3280 EUH 3576 AMH 3331 AMH 3332 AMH 3317 AMH 3560 AMH 3420 HIS 3473
AMH 3428
LAH 3482 LAH 3410 HIS 3930 HIS 3930 EUH 4121 EUH 4123 EUH 4200 EUH 4201 EUH 4205 EUH 4206 EUH 4286 EUH 4286 EUH 4286 EUH 4286 AMH 4110 AMH 4150 AMH 4025 AMH 4030 AMH 4930 AMH 4930 AMH 4930 AMH 4930 AMH 4930 AMH 4930 AMH 4930 AMH 4930
AMH 4930
LAH 4132
LAH 4133
LAH 4201
LAH 4300
EUH 4187
EUH 4187 EUH 4187 EUH 4187 EUH 4187 LAH 4932
LAH 4932

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| Number | Number |

HIS 474 LAH 4932 HIS 480 LAH 4474 HIS 497C HIS 4930 HIS 498C HIS 499 HIS 500 HIS 501 HIS 502 HIS 503 HIS 504 HIS 505 HIS 506 HIS 507 HIS 508 HIS 520 HIS 597 HIS 598 HIS 599C HME 495 HMF 301 HMF 306 HMF 405 HMF 406 HMF 407 HMF 410 HMF 495 HMF 495C HMF 506 HMF 507C HMF 510 HMF 596 HRM 301
HRM 309
HRM 310
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HRM 312
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HRM 361 C
HRM 398
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HRM 400
HRM 401
HRM 404
HRM 405 3945 HFT 3203 HFT 3503 HFT 3514 HFT 3524 HFT 3313 HFT 3323 HFT 3343 HFT 3423 HFT 3413 HFT 3900 HFT 3905 HFT 4910 HFT 4494 HFT 4464 HFT 4455

|  | Current FIU <br>  <br> Number | New <br> Statewide Prefix \& Number | Current FIU <br> Prefix \& Number | New Statewide Prefix \& Number | Current FIU <br> Prefix \& Number | New Statewide Prefix \& Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | HRM 406 | HFT 4444 | HSM 481 | HSC 4021 | IAT 420C | BCN 4251C |
|  | HRM 407 | HFT 4485 | HSM 483 | HSC 4023 | IAT 422C | ETM 4408L |
|  | HRM 408 | HFT 4654 | HSM 484 | HSC 4061 | IAT 495 | ETG 4905 |
|  | HRM 410 | FSS 4315 | HSM 490 | HSC 4940 | \|AT 497 | ETG 4930 |
|  | HRM 411 | FSS 4333 | HSM 493 | HSC 4572 | INR 301 | INR 3003 |
|  | HRM 415 | FSS 4105 | HSM 495 | HSC 4151 | INR 302C | INR 3004 |
|  | HRM 416 | FOS 4201 | HSM 499 | HSC 4930 | INR 312 | INR 3081 |
|  | HRM 418 | FSS 4245 | HSM 502 | HCA 5504 | INR 323 | INR 3031 |
|  | HRM 419 | HFT 4293 | HSM 515 | HCA 5611 | INR 324 | INR 3502 |
|  | HRM 421 | HFT 4484 | HSM 517 | HSC 5120 | INR 325C | PUP 3206 |
|  | HRM 425 | HFT 4234 | HSM 523 | EMT 5008C | INR 331 | GEA 3710 |
|  | HRM 427 | HFT 4276 | HSM 624 | EMT 6936C | INR 333 | INR 3274 |
|  | HRM 428 | HFT 4224 | HSM 680 | HCA 6718 | INR 334 | GEA 3000 |
|  | HRM 435 | FSS 4614 | HSM 681 | HCA 6719 | INR 341 C | CPO 3326 |
| (1) | HRM 446 | FSS 4431 | HSM 682 | HCA 6113 | INR 342C | INR 3245 |
| (1) | HRM 450 | HFT 4674 | HSM 683 | HCA 6316 | INR 343 | INR 3214 |
| - | HRM 480 | HFT 4274 | HSM 684 | HCA 6508 | INR 344 | INR 3246 |
| 3 | HRM 481 | HFT 4574 | HSM 687 | HCA 6691 | INR 345 | INR 3043 |
| 3 | HRM 485 | HFT 4474 | HSM 688 | HCA 6201 | INR 351 | GEA 3554 |
| $\pm$ | HRM 500 | HFT 5901 | HSM 693 | HCA 6701 | INR 352 | GEA 3600 |
| $\bigcirc$ | HRM 501 | HFT 5901 | HSM 695 | HCA 6732 | INR 353C | INR 3226 |
| 0 | HRM 502 | HFT 5906 | HSM 697 | HCA 6392 | INR 362 | GEA 3400 |
| $\bigcirc$ | HRM 503 | HFT 5906 | HUM 300 | HUM 3024 | INR 373 | GEA 3630 |
| - | HRM 504 | HFT 5911 | HUM 301-309 | HUM 3872 | INR 401 | INR 4283 |
| - | HRM 509 | HFT 5476 | HUM 310 | HUM 3302 | INR 407 | INR 4905 |
|  | HRM 510 | HFT 5495 | HUM 311 | HUM 3302 | INR 413 | INR 4401 |
| O | HRM 533 | HFT 5595 | HUM 312 | HUM 3302 | INR 424 | POS 4691 |
|  | HRM 536 | FSS 5361 | HUM 313 | HUM 3302 | INR 425 | INR 4408 |
| 4 | HRM 600 | HFT 6903 | HUM 314 | HUM 3302 | INR 426C | INR 4408 |
|  | HRM 601 | HFT 6907 | HUM 315 | HUM 3302 | INR 427C | INR 4408 |
|  | HRM 602 | HFT 6912 | HUM 316 | HUM 3302 | INR 428C | INR 4408 |
|  | HRM 606 | FFS 6452 | HUM 317 | HUM 3302 | INR 429C | INR 4408 |
| (1) | HRM 610 | HFT 6246 | HUM 318 | HUM 3302 | INR 444C | INR 4247 |
| 0 | HRM 615 | HFT 6586 | HUM 319 | HUM 3302 | INR 445 | INR 4054 |
| E | HRM 620 | HFT 6477 | HUM 320-349 | HUM 3813 | INR 453 | INR 4024 |
| (1) | HRM 621 | HFT 6486 | HUM 400-419 | HUM 4542 | INR 456 | INR 4044 |
| (1) | HRM 625 | HFT 6296 | HUM 420-449 | HUM 4450 | INR 461 | INR 4082 |
| (1) | HRM 626C | HFT 6297 | HUM 490 | HUM 4906 | INR 462C | INR 4931 |
| (1) | HRM 628 | HFT 6946 | HUM 491 | HUM 4906 | INR 463C | INR 4931 |
| $\square$ | HRM 629 | HFT 6697 | HUM 492 | HUM 4906 | INR 464C | INR 4931 |
|  | HRM 630 | HFT 6916 | HUM 493 | HUM 4906 | INR 465C | INR 4931 |
| 0 | HRM 635 | HFT 6256 | HUM 494 | HUM 4906 | INR 471 | INR 4033 |
| $\mathscr{0}$ | HRM 640 | HFT 6286 | HUM 495 | HUM 4906 | INR 489 | INR 4261 |
| $\bigcirc$ | HRM 645 | HFT 6446 | HUM 496 | HUM 4906 | INR 518 | INR 5906 |
|  | HRM 650 | HFT 6487 | HUM 497 | HUM 4906 | INR 572 | INR 5086 |
| O | HRM 660 | HFT 6596 | HUM 498 | HUM 4906 | INS 405 | RMI 4015 |
|  | HRM 665 | HFT 6456 | HUM 499 | HUM 4920 | INS 407 | RMI 4115 |
|  | HRM 670 | HFT 6226 | HUM 499 | HUM 4920 | INS 408 | RMI 4305 |
|  | HRM 675 | FSS 6834 |  |  | INS 409 | RMI 4405 |
|  | HRM 680 | FSS 6365 | IAT 305C | BCN 3702C | INS 410 | RMI 4220 |
|  | HSM 301 | ENC 3397 | IAT 306 | ETI 3417C | INS 411 | RMI 4221 |
|  | HSM 304 | HSC 3300 | IAT 307C | ARV 3210C | INS 412 | RMI 4212 |
|  | HSM 311 | HSC 3401 | IAT 405C | ETC 4252L | INS 413 | RMI 4213 |
|  | HSM 350 | HSC 3051 | IAT 406C | BCN 4033L | INS 415 | RMI 4117 |
|  | HSM 390 | HSC 3905 | IAT 407C | ARV 4250 | INS 416 | RMI 4145 |
|  | HSM 400 | HSC 4101 | IAT 408C | ARV 4150 | INS 417 | RMI 4135 |
|  | HSM 401 | HSC 4201 | IAT 409C | ETM 4823C | INS 418 | RMI 4016 |
|  | HSM 403 | HSC 4301 | IAT 415 | ETD 4525C | INS 428 | RMI 4500 |
|  | HSM 413 | HSC 4111 | IAT 416 | ETD 4526C | INS 493 | RMI 4910 |
|  | HSM 414 | HSC 4321 | IAT 417C | ETM 4407L | INS 497 | RMI 4935 |
|  | HSM 418 | HSC 4131 | IAT 418 | ETE 4562 | INS 600 | RMI 6055 |
|  | HSM 480 | HSC 4390 | IAT 419 | ETI 4421C | INS 693 | RMI 6912 |


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| :---: | :---: | :---: | :---: | :---: | :---: |
| INS 697 | RMI 6936 | LIS 492C | IDS 4905 | MAN 663 | MAN 6213 |
| ITA 301 | ITA 3120 | LIS 493C | IDS 4905 | MAN 671 | MAN 6603 |
| ITA 303 | ITA 3122 | LIS 494C | IDS 4905 | MAN 672 | MAN 6604 |
| ITA 304 | ITA 3200 | LIS 495C | IDS 4905 | MAN 690 | MAN 6910 |
| ITA 305 | ITA 3201 | LIS 496C | IDS 4905 | MAN 691 | MAN 6715 |
| ITA 325 | ITA 3420 | LIS 497C | IDS 4905 | MAN 693 | MAN 6905 |
| ITA 325C | ITA 3301 | LIS 498C | IDS 4905 | MAN 694 | MAN 6930 |
| ITA 365C | ITT 3110 | LIS 499C | IDS 4905 | MAN 695 | MAN 6930 |
| ITA 497C | ITA 4930 |  |  | MAN 697 | MAN 6930 |
| ITA 498C | ITA 4905 | MAN 407 | MAN 4810 | MAR 404 | MAR 4713 |
| ITE 300 | ETI 3670 | MAN 410 | QMB 4700 | MAR 405 | MAR 4153 |
| ITE 301C | MAN 3504 | MAN 420 | QMB 4680 | MAR 406 | MAR 4154 |
| ITE 312 | ETI 3444 | MAN 422 | MAN 4820 | MAR 408 | MAR 4243 |
| ITE 320 | ETI 3681 | MAN 427 | MAN 4322 | MAR 410 | MAR 4503 |
| ITE 324 | ETI3110 | MAN 428 | MAN 4523 | MAR 411 | MAR 4613 |
| ITE 330 | ETI 3645 | MAN 430 | MAN 4521 | MAR 413 | MAR 4303 |
| ITE 331 | ETI 3646 | MAN 451 | MAN 4600 | MAR 414 | MAR 4344 |
| ITE 350 | ETI 3700 | MAN 452 | MAN 4610 | MAR 415 | MAR 4343 |
| ITE 351 | BCN 3730 | MAN 453 | MAN 4201 | MAR 416 | MAR 4103 |
| ITE 371 | ETI 3603 | MAN 454 | MAN 4401 | MAR 417 | MAR 4203 |
| ITE 400 | ETI 4660 | MAN 455 | MAN 4410 | MAR 418 | MAR 4244 |
| ITE 401 | ETI 3661 | MAN 456 | MAN 4151 | MAR 419 | MAR 4213 |
| ITE 410 | ETI 4690 | MAN 457 | MAN 4301 | MAR 423 | MAR 4453 |
| ITE 422C | ETI 4683 | MAN 458 | MAN 4802 | MAR 429 | MAR 4773 |
| ITE 428 | ETI 4634 | MAN 461 | MAN 4120 | MAR 431 | MAR 4733 |
| ITE 429 | ETI 4635 | MAN 462 | MAN 4930 | MAR 433 | MAR 4703 |
| ITE 440C | ETI 4650 | MAN 463 | MAN 4320 | MAR 434 | MAR 4704 |
| ITE 450 | ETI 4708 | MAN 464 | MAN 4330 | MAR 441 | MAR 4723 |
| ITE 460C | HES 4432 | MAN 470 | MAN 4781 | MAR 451 | MAR 4054 |
| ITE 470 | MAN 4781 | MAN 477 | STA 4605 | MAR 490 | MAR 4753 |
| ITE 471 | ETI 4632 | MAN 486C | MAN 4102 | MAR 493 | MAR 4907 |
| ITE 474 | ETI 4681 | MAN 493 | MAN 4905 | MAR 494 | MKA 4392 |
| ITE 476 | ETI 4452 | MAN 497 | MAN 4930 | MAR 497 | MAR 4933 |
| ITE 477 | STA 4605 | MAN 534 | MAN 5415 | MAR 593 | MAR 5913 |
| ITE 480 | ETI 4620 | MAN 541 | MAN 5123 | MAR 597 | MAR 5935 |
| ITE 485 | ETI 4671 | MAN 550 | MAN 5830 | MAR 608 | MAR 6246 |
| ITE 486C | FOS 4043 | MAN 551 | MAN 5831 | MAR 610 | MAR 6506 |
| ITE 490 | ETI 4691 | MAN 552 | MAN 5832 | MAR 611C | MAR 6617 |
| ITE 495 | ETI 4905 | MAN 558 | MAN 5930 | MAR 613 | MAR 6606 |
| ITE 497 | ETG 4930 | MAN 601 MAN 605 | MAN 6819 QMB 6805 | MAR 615 | MAR 6346 |
| LAW 401 | BUL 4111 | MAN 606 | QMB 6855 | MAR 634 | MAR 6707 |
| LAW 402 | BUL 4112 | MAN 611 | QMB 6875 | MAR 690 | MAR 6717 |
| LAW 407 | BUL 4661 | MAN 618 | MAN 6833 | MAR 693 | MAR 6915 |
| LAW 410 | BUL 4100 | MAN 619 | MAN 6895 | MAR 695 | MAR 6971 |
| LAW 493 | BUL 4905 | MAN 620 | QMB 6845 | MAR 697 | MAR 6936 |
| LAW 497 | BUL 4650 | MAN 621 | MAN 6834 | MAS 300C | COP 3170 |
| LAW 600 | BUL 6124 | MAN 622 | MAN 6835 | MAS 301 | MAC 3411 |
| LAW 693 | BUL 6906 | MAN 630 | MAN 6836 | MAS 302 | MAC 3412 |
| LAW 697 | BUL 6651 | MAN 639 | MAN 6529 | MAS 303 | MAC 3413 |
| LIS 450C | IDS 4920 | MAN 641 | MAN 6124 | MAS 304 | STA 3132 |
| LIS 451C | IDS 4920 | MAN 642 | MAN 6311 | MAS 305 | STA 3133 |
| LIS 452C | IDS 4920 | MAN 643 | MAN 6351 | MAS 306C | STA 3013 |
| LIS 453C | IDS 4920 | MAN 644 | MAN 6321 | MAS 307 | STA 3122 |
| LIS 454C | IDS 4920 | MAN 645 | MAN 6331 | MAS 308 | STA 3123 |
| LIS 455C | IDS 4920 | MAN 650 | MAN 6405 | MAS 309 | MGF 3113 |
| LIS 456C | IDS 4920 | MAN 651 | MAN 6403 | MAS 310 | COC 3400 |
| LIS 457C | IDS 4920 | MAN 652 | MAN 6411 | MAS 311C | COP 3110 |
| LIS 458C | IDS 4920 | MAN 653 | MAN 6601 | MAS 312 | COP 3400 |
| LIS 459C | IDS 4920 | MAN 660 | MAN 6121 | MAS 313 | COP 3500 |
| LIS 490C | IDS 4905 | MAN 661 | MAN 6112 | MAS 314 | CDA 3040 |
| LIS 491C | IDS 4905 | MAN 662 | MAN 6211 | MAS 315 | COP 3201 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MAS 316 | COC 3300 | MAS 523 | STA 5826 | MDT 484C | MLS 47000 |
|  | MAS 317 | MAC 3132 | MAS 531 | STA 5676 | MDT 485 | MLS 4755 C |
|  | MAS 318 | MTG 3212 | MAS 532 | STA 5677 | MDT 491C | MLS 4327L |
|  | MAS 319 | COP 3120 | MAS 534 | STA 5446 | MDT 492C | MLS 4557L |
|  | MAS 321 | MAC 3233 | MAS 535 | STA 5036 | MDT 493C | MLS 4467L |
|  | MAS 322 | STA 3161 | MAS 541 | STA 5206 | MDT 494C | MLS 4637L |
|  | MAS 323 | COP 3172 | MAS 542 | STA 5207 | MDT 495C | MLS 4160 L |
|  | MAS 323C | COP 3201 | MAS 543 | STA 5236 | MDT 551C | MLS 5934 C |
|  | MAS 324 | COP 3401 | MAS 544 | STA 5237 | MDT 552C | MLS 5935 C |
|  | MAS 324C | COP 3400 | MAS 571 | STA 5606 | MDT 553C | MLS 5936 C |
|  | MAS 325 | MAP 3302 | MAS 580 | MAS 5215 | MET 300 | ETI 3411C |
|  | MAS 331 | STA 3321 | MAS 595 | CIS 5908 | MET 310 | ETM 3312 |
|  | MAS 332 | STA 3322 | MAS 595 | STA 5906 | MET 351 | ETG 3510 |
|  | MAS 335 | STA 3163 | MAS 598 | CIS 5934 | MET 353C | ETM 3801 |
| 0 | MAS 336 | STA 3164 | MAS 601 | MAP 6127 | MET 360 | BCN 3560 C |
| - | MAS 338 | STA 3182 | MBA 605 | ACC 6011 | MET 362C | ETM 3510 |
| 3 | MAS 345 | MAS 3103 | MBA 606C | ECP 6704 | MET 459C | ETM 4205C |
| (1) | MAS 351 | MAD 3305 | MBA 607 | QMB 6603 | MET 460C | ETM 4225 C |
| $\pm$ | MAS 361 | MAP 3103 | MBA 612 | ACC 6612 | MET 461C | ETM 42350 |
| $\bigcirc$ | MAS 362 | MAP 3104 | MBA 613 | ACC 6513 | MET 462C | ETM 4511 |
| 0 | MAS 365 | MAD 3401 | MBA 615 C | MAN 6713 | MET 463C | ETM 47200 |
|  | MAS 375 | MAD 3104 | MBA 616 C | MAN 6725 | MET 464C | ETM 4750 |
|  | MAS 377 | COP 3530 | MBA 617 | MAN 6205 | MET 465C | ETM 4752 |
| - | MAS 395 | CIS 3905 | MBA 625 | MAN 6721 | MET 470C | ETM 4221L |
|  | MAS 395 | STA 3905 | MBA 626C | MAN 6830 | MET 471C | ETM 4643L |
|  | MAS 398 | STA 3930 | MBA 627 | ACC 6313 | MIL 301C | MIS 3423 |
| = | MAS 398 | CIS 3932 | MBA 635 | FIN 6428 | MIL 302C | MIS 3310 |
| ■ | MAS 401 | MAE 4810 | MBA 636 | MAR 6716 | MIL 401C | MIS 4120 C |
|  | MAS 402 | MAE 4811 | MBA 637 | MAN 6501 | MIL 402C | MIS 4410 C |
|  | MAS 403 | CDA 4101 | MBA 695C | MAN 6974 | MOL 302 | ITA 3121 |
|  | MAS 405 | MHF 4302 | MBA 699C | MAN 6721 | MOL 307 | LIN 3200 |
| (1) | MAS 415 | COP 4610 | MDT 306C | MLS 3750C | MOL 308 | LIN 3400 |
| 0 | MAS 416 C | CDA 4163 | MDT 307C | MLS 3700C | MOL 309 | LIN 3010 |
| c | MAS 417 | CDA 4171 | MDT 309L | MLS 3420L | MOL 311 | POR 3000 |
| (1) | MAS 418 | CAP 4721 | MDT 375C | MLS 3430C | MOL 311 | FOL 3000 |
|  | MAS 419 | MTB 4371 | MDT 401 | MLS 4306 | MOL 311 | FRE 3000 |
| (1) | MAS 425 | MAP 4401 | MDT 401L | MLS 4306L | MOL 311 | GER 3000 |
| (1) | MAS 426 | MAP 4402 | MDT 402C | MLS 4535C | MOL 311 | HEB 3000 |
| 0 | MAS 435 | STA 4664 | MDT 402L | MLS 4535L | MOL 311 | ITA 3000 |
|  | MAS 437 | STA 4502 | MDT 403 | MLS 4405 | MOL 311 | SPN 3000 |
|  | MAS 451 | MAA 4211 | MDT 403L | MLS 4405L | MOL 328 | FOT 3800 |
| 0 | MAS 452 | MAA 4212 | MDT 404C | MLS 4625C | MOL 336 | LIN 3610 |
|  | MAS 453 | MAA 4402 | MDT 404L | MLS 4625L | MOL 337 | FOL 3732 |
|  | MAS 465 | MTG 4302 | MDT 411L | MLS 4307L | MOL 355 | FOW 3580 |
|  | MAS 471 | STA 4603 | MDT 412L | MLS 4536L | MOL 356 | FOW 3582 |
|  | MAS 472 | STA 4604 | MDT 413L | MLS 4406L | MOL 357 | FOW 3584 |
|  | MAS 475 | COT 4320 | MDT 414L | MLS 4626L | MOL 358 | FOW 3540 |
|  | MAS 477 | STA 4605 | MDT 421C | MLS 4325 | MOL 359 | FOW 3520 |
|  | MAS 480 | MAS 4301 | MDT 422C | MLS 4555 | MOL 365 | FOT 3110 |
|  | MAS 481 | MAS 4302 | MDT 423C | MLS 4465 | MOL 397 | FOL 3930 |
|  | MAS 495 | CIS 4906 | MDT 424C | MLS 4635 | MOL 398 | FOL 3905 |
|  | MAS 495 | CIS 4905 | MDT 425C | MLS 4150 | MOL 399 | FOL 3955 |
|  | MAS 495 | STA 4905 | MDT 426C | MLS 4190 | MOL 405 | FOW 4590 |
|  | MAS 495 | MAT 4905 | MDT 451L | MLS 4820 | MOL 406 | FOW 4390 |
|  | MAS 496 | MAT 4943 | MDT 452L | MLS 4821 | MOL 407 | FOW 4790 |
|  | MAS 498 | CIS 4932 | MDT 471 C | MLS 4110 | MOL 411 | FOL 4013 |
|  | MAS 501 | MAP 5117 | MDT 472C | MLS 4130 | MOL 428 | FOT 4801 |
|  | MAS 502C | CAP 5202 | MDT 473C | MLS 4120 | MOL 438 | FOW 4810 |
|  | MAS 508 | STA 5707 | MDT 474C | MLS 4140 C | MOL 455 | FOL 4935 |
|  | MAS 516 C | COP 5540 | MDT 480 | MLS 4320C | MOL 465 | FOT 4130 |
|  | MAS 518 | COP 5640 | MDT 481C | MLS 4630C | MOL 475 | LIN 4226 |
|  | MAS 522 | STA 5447 | MDT 483C | MLS 4460C | MOL 476 | LIN 4333 |

## Curren FIU Prefix \& Number

MOL 478
MOL 479
MOL 479
MOL 497
MOL 498
MOL 499
MOL 505
MOL 506
MOL 510
MOL 515
MOL 528
MOL 537
MOL 556
MOL 558
MOL 570
MOL 579
MRE 301
MRE 301L
MRE 321
MRE 321L
MRE 322
MRE 322L
MRE 331
MRE 332
MRE 333
MRE 371
MRE 372
MRE 421
MRE 421L
MRE 422
MRE 422L
MRE 434
MRE 471
MRE 472
MRE 940
MUP 305
MUP 307
MUP 315
MUP 317
MUP 325
MUP 327
MUP 335
MUP 345
MUP 355
MUP 365
MUP 366
MUP 367
MUP 375
MUP 385
MUP 405
MUP 407
MUP 415
MUP 417
MUP 425
MUP 427
MUP 435
MUP 445
MUP 455
MUP 455
MUP 465
MUP 475
MUP 485
New
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LIN 4418
IN 4620
SPN 4562
FOL 4930
FOL 4905
FOL 4958
LIN 5934
FOW 5395
FOW 5587
FOW 5934
FOT 5802
FOL 5735
FOT 5131
FOW 5545 FOW 5938 LIN 5625
HSC 3531 HSC 3531L MRE 3110 MRE 3110L MRE 3205 MRE 3205L HSC 3511 HSC 3512 HSC 3513 MRE 3800 MRE 3810 MRE 4410 MRE 4410 L MRE 4312 MRE 4312L MRE 4304
MRE 4831 MRE 4830 MRE 4835 MUN 3310 MUN 3310 MUN 3210 MUN 3140 MUN 3710 MUN 3460 MVB 3334 MVP 3331 MVK 3331 MVS 3332 MVS 3116 MVS 3216 MVV 3331 MVW 3333 MUN 4310 MUN 4310 MUN 4210 MUN 4460 MUN 4710 MUN 4460 MVB 4345 MVP 4341 MVK 4343 MVK 4341 MVS 4343 MVV 4341 MVW 4345
Current
FIU
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New
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MUP 505 MUP 507 MUP 515 MUP 517 MUP 525 MUP 527 MUP 535 MUP 545 MUP 555 MUP 565 MUP 575 MUP 585 MUS 305 MUS 306 MUS 307 MUS 315 MUS 316 MUS 317 MUS 325 MUS 326 MUS 327 MUS 328 MUS 328 MUS 335 MUS 385 MUS 395 MUS 415 MUS 416 MUS 417 MUS 425 MUS 426 MUS 427 MUS 428 MUS 429 MUS 435 MUS 436 MUS 437 MUS 485 MUS 495 MUS 517 MUS 526 MUS 534 MUS 585 MUS 595

NUR 350 NUR 360 NUR 365C NUR 365L NUR 370 NUR 375C NUR 375L NUR 380 NUR 401 C NUR 402 NUR 403 NUR 404C NUR 406 NUR 410 NUR 420 NUR 425 NUR 425L

MUN 5315 MUN 5315 MUN 5215 MUN 5465 MUN 5715 MUN 5465 MVB 5355 MVP 5350 MVK 5351
MVS 5353
MVV 5351
MVW 5353
MUL 3011
MUL 3012 MUH 3116 MUH 3211 MUH 3212 MUH 3372 MUT 3031 MUT 3416 MUT 3611 MUC 3201 MUT 3032 MUE 3140 MUS 3905 MUS 3910 MUL 4661 MUL 4500 MUL 4400 MUL 4311 MUT 4561 MUC 4201 MUC 4202 MUM 4301 MUG 4101 MUG 4301 MUG 4201 MVS 4975 MUS 4910 MUH 5375 MUT 5325 MUG 5105 MUS 5905 MUS 5910

NUU 3431 NUU 3160 NUU 3210 C NUU 3211L NUU 3220C NUU 3222C NUU 3221L NUU 3440 C NUU 4211C NUR 4642 NUR 4955 NUU 4410 NUU 4330C NUR 4335C NUU 4423C NUU 4254 NUU 4211L

| Current | New |
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| Prefix \& |  |
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NUR 430 NUU 4630
NUR 435 NUR 4910C NUR 440 NUR 4910 C NUR 445C NUR 445L NUR 450 NUR 450L NUR 455C NUR 455L NUR 460
NUR 460L NUR 465C NUR 470 NUR 470L NUR 475C NUR 493

ОСТ 300
OCT 315
OCT 316
OCT 320
OCT 326C
OCT 330
ОСT 335
ОСТ 360
OCT 410
OCT 420
OCT 421
OCT 430
OCT 431
OCT 432
OCT 433 C
OCT 440
OCT 450
OCT 460
OCT 461
OCT 462
OCT 500
OCT 501
OCT 502
OCT 503
OCT 504
PAD 301
PAD 305
PAD 310
PAD 312
PAD 320
PAD 321
PAD 325
PAD 400
PAD 401
PAD 402
PAD 403
PAD 404
PAD 405
PAD 406
PAD 407
PAD 408
PAD 409
PAD 410
PAD 428

Current FIU Prefix \& Number

PAD 493
PAD 520
PAD 523
PAD 561
PAD 562
PAD 564
PAD 600
PAD 601
PAD 602
PAD 603 PAD 604 PAD 610
PAD 611
PAD 621
PAD 622
PAD 630
PAD 631
PAD 633
PAD 640
PAD 641
PAD 643
PAD 650
PAD 651
PAD 660
PAD 663
PAD 691
PAD 692
PAD 6930
PHE 305
PHE 306
PHE 307
PHE 308
PHE 309
PHE 405
PHE 407
PHE 408
PHE 411
PHE 412
PHE 416 C
PHE 425
PHE 436
PHE 505
PHE 506
PHE 507
PHE 509
PHE 535
PHE 585
PHE 595
PHE 695
PHE 696
PHE 698
PHI 300
PHI 301
PHI 302
PHI 303
PHI 305
PHI 310
PHI 312
PHI 313
PHI 314C
PHI 316
PHI 318C

## New Statewide Prefix \& Number

PAD 4905
PAD 5041
PAD 5840 PAD 5427
PAD 5435 PAD 5443 PAD 6053
PAD 6106
PAD 6227
PAD 6706 PAD 6005 PAD 6838 PAD 6836 PAD 6035 PAD 6042 PAD 6701 CIS 6204 PUP 6006 PAD 6417 PAD 6437 PAD 6109 PAD 6816 PAD 6807 PAD 6605 PAD 6043 PAD 6915 PAD 6946 PAD 6907 PET 3310 PET 3360 PET 3461C PET 3202 PET 3640C PET 4450L PEO 4014C PET 4430 PET 4230C PET 4433 PET 4622C PET 4945L PET 4510 PET 5925C PET 5238C PET 5426 PET 5125 PET 5256C PET 5366C PET 5906 PET 6944 PET 6932 PET 6535 PHI 3010 PHI 3100 PHI 3300 PHI 3500 PHI 3600 PHI 3302 PHH 3200 PHH 3300 PHH 3420 PHP 3840 PHH 3042

## Current FIU Prefix \& Number

PHI 319C PHI 320C
PHI 324
PHI 325
PHI 326
PHI 327
PHI 328
PHI 329
PHI 401 PHI 404C
PHI 410
PHI 411
PHI 414
PHI 415
PHI 416
PHI 418C
PHI 420C
PHI 421C
PHI 422
PHI 427
PHI 428
PHI 430
PHI 431
PHI 434
PHI 435
PHI 440
PHI 445
PHI 487
PHI 490
PHI 495
PHI 591
PHR 3000
PHR 3100
PHR 311 C
PHR 3150
PHR 401
PHR 4100
PHR 426 C
PHR 4900
PHR 4950
PHR 591 C
PHT 301
PHT 310
PHT 311
PHT 312
PHT 314
PHT 317
PHT 320
PHT 323
PHT 324
PHT 333
PHT 334
PHT 344
PHT 352
PHT 354
PHT 407
PHT 415
PHT 416
PHT 417
PHT 425
PHT 426
PHT 435
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PHH 3700
PHI 3420
PHI 3700
PHI 3401
EDF 3542
PHM 3500
PHI 3400
PHI 3800
PHI 4133
PHI 4680
PHH 4500
PHH 4600
PHP 4784
PHP 4786
PHP 4782
PHP 4510
PHI 4631
PHI 4632
PHI 4633
PHM 4220
PHM 4400
PHI 4221
PHI 4222
PHM 4020
PHM 4050
PHI 4882 PHI 4460 PHI 4930 PHI 4910 PHI 4935 PHI 5934 PHI 3710 PHI 3762 PHH 3840 PHH 3843
PHM 4000 PHI 4764 PHM 4030
PHI 4910
PHI 4936 PHI 5934 PHT 3001 PHT 3121 PHT 3122 PHT 3123 PHT 3310 PHT 3311 PHT 3300 PHT 3133C PHT 3232C PHT 3803 PHT 3812 PHT 3400 PHT 3202C PHT 3231 PHT 4905 PHT 4312 PHT 4235C PHT 4313 PHT 4141 PHT 4932 PHT 4822

## Current FIU <br> Prefix \& <br> Number

PHT 436
PHT 437
PHT 438
PHT 447
PHT 456
PHT 488C
PHY 301
PHY 301L
PHY 302
PHY 302L
PHY 303
PHY 303L
PHY 305
PHY 305L
PHY 306
PHY 307
PHY 315
PHY 321
PHY 322
PHY 340
PHY 341
PHY 351
PHY 352
PHY 361
PHY 362
PHY 410
PHY 411
PHY 415
PHY 416
PHY 420
PHY 421
PHY 451
PHY 471
PHY 472
PHY 473
PHY 491L
PHY 492L
PHY 493L
PHY 501
PHY 591
PHY 592
PHY 593
POR 301
POR 302
POR 303
POR 304
POR 305
POR 325
POR 365C
POR 497C
POR 498C
POS 301
POS 302C
POS 303
POS 304
POS 305C
POS 306
POS 307C
POS 308
POS 309C
POS 310C
POS 311C

## New Statewide Prefix \& Number

PHT 4823
PHT 4824
PHT 4825
PHT 4510
PHT 4234C
PHT 4351
PHY 3040 C
PHY 3040L
PHY 3041 C
PHY 3041L
PHY 3042 C PHY 3042L
PHY 3050 C
PHY 3050L
PHY 3051C AST 3025L
PSC 3001
PHY 3503
PHY 3424
PHY 3123
PHY 3124
PSC 3351
PHY 3722C
PSC 3810
PHY 3033
PHY 4221
PHY 4526
PHY 4323
PHY 4324
PHY 4604
PHY 4222
PHS 4303
PHY 4936
PHY 4937
PHY 4938
PHY 4905
PHY 4906
PHY 4907
PHS 5125
PHY 5936
PHY 5937
PHY 5938
POR 3120
POR 3121
POR 3122
POR 3200
POR 3201
POR 3420
PRT 3401
POW 4930
POW 4905
POS 3001 POS 3705

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| :---: | :---: |
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| Prefix \& |  |
| Number | Number |

POS 312C POS $313 C$
POS 314
POS 316
POS 317C
POS 321
POS 321
POS 322C
POS 323C
POS 326C
POS 331
POS 333
POS 339
POS 341
POS 343
POS 344C
POS 345C
POS 348
POS 403C
POS 404C
POS 405
POS 407C
POS 408 C
POS 409C
POS 411C
POS 413
POS 417
POS 420
POS 422C
POS 423
POS 427C
POS 431
POS 438C
POS 439C
POS 441 C
POS 442C
POS 444C
POS 445 C
POS 452C
POS 455C
POS 460
POS 461C
POS 462C
POS 463
POS 465C
POS 466C
POS 469C
POS 471C
POS 472C
POS 473 C
POS 474C
POS 481
POS 484
POS 486C
POS 488
POS 488
POS 491C
POS 492C
POS 493C
POS 495C
POS 518 C
POS 552

| Current | New |
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| Number | Number |

POS 553C POS 5606
POS 556C POT5115
POS 566 POT5934
POS 572C POS 5934
POS 587C INR 5414
POS 607C POT 6007
POS 615 PUP 6007
POS 617 INR 6007
POS 618 POS 6146
POS 683C POS 6934
PPS 506 EGC 5405
PPS 508 EGC 5305
PPS 508L EGC 5319
PPS 601 EGC 6707
PPS 602 EGC 6708
PPS 610 EGC 6725
PPS 611 EGC 6726
PPS 612 EGC 6709
PPS 620 EGC 6462
PPS 621 EEX 6211
PPS 622C EGC 6255
PPS 626 EGC 6616
PPS 627 EGC 6203
PPS 628 EGC 6822
PPS 629C EGC 6248
PPS 630C EGC 6605
PPS 650 EGC 6001
PPS 695 EGC 6890
PPS 696 EGC 6936
PPS 697C EGC 6925
PRM 305 LEI 3542
PRM 307 LEI 3630
PPS 698 EGC 6905
PRM 309 ORH 3220C
PRM 350 LEI 3524
PRM 375 LEI 3437
PRM 425 LEI 4940
PRM 497 LEI 4590
PRM 505 LEI 5510
PRM 509 LEI 5440
PRM 550 LEI 5595
PRM 595 LEI 5907
PRM 695 LEI 6922
PSY 300 PSY 3013
PSY 305 EDP 3004
PSY 307 DEP 3000
PSY 310 SOP 3742
PSY 311 SOP 3932
PSY 320 CYP 3003
PSY 321 SOP 3724
PSY 322 SOP 3725
PSY 323 SOP 3783
PSY 330 DEP 3001
PSY 331 DEP 3303
PSY 332 DEP 3402
PSY 340 PPE 3502
PSY 341 EXP 3652
PSY 343C PSB 3523C
PSY 349 PSY $3043 C$
PSY 349L PSY 3043L
PSY 350 INP 3002
PSY 360 PPE 3003

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| :---: | :---: |
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| Prefix \& |  |
| Number | Number |

PSY 361 EXP 3304
PSY 362 CLP 3003
PSY 363 SOP 3772
PSY 370 SOP 3004
PSY 372 SOP 3931
PSY410 SOP4712
PSY412 LIN 4701
PSY 413 EAB 4794
PSY 420 SOP 4705
PSY 421 CYP 4933
PSY 422 SOP 4513
PSY 427C DEP 4204
PSY 429 CYP 4953
PSY 430 LIN 4710
PSY 431 DEP 4163
PSY 432 DEP 4164
PSY 433 SOP 4015
PSY 434 DEP 4464
PSY 435
PSY 439
PSY 440
PSY 441
PSY 442
PSY 443
PSY 448C
PSY 449
PSY 450
PSY 451
PSY 452
PSY 453
PSY 459
PSY 460
PSY 461
PSY 462
PSY 463
PSY 464
PSY 465
PSY 467C
PSY 469
PSY 470
PSY 471
PSY 472
PSY 473
PSY 474C
PSY 479
PSY 479 L
PSY 480
PSY 481
PSY 482
PSY 483
PSY 488
PSY 490
PSY 491
PSY 492
PSY 498
PSY 499
PSY 507C
PSY 508C
PSY 510
PSY 520 C
PSY 521C
PSY 522


SOP 4649
INP 4055C PPE 4604
CLP 4144
PPE 4930
PPE 4105
PPE 4514
CLP 4374
DEP 4213
PPE 4325C SOP 4505
SOP 4525 SOP 4214 SOP 4522 SOP 4842 SOP 4215C SOP 4215L PSY 4930 SOP 4735 SOP 4444 SOP 4715 PPE 4123 PSY 4900 PSY 4941 PSY 4916 PSY 4931 PSY 4914
PSY 5206C
PSY 5246C
DEP 5045
CYP 5535
CYP 5515
CYP 5526

|  | Current FIU <br>  <br> Number | New Statewide Prefix \& Number | Current FIU <br>  <br> Number | New Statewide Prefix \& Number | Current FIU Prefix \& Number | New Statewide Prefix \& Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PSY 529 | CYP 5954 | RES 497 | REE 4930 | SOC 433 | SOC 4490 |
|  | PSY 530 | DEP 5145 | RES 500C | REE 5200 | SOC 434 | SOC 4490 |
|  | PSY 531 | SPA 5401 | RES 503C | REE 5710 | SOC 435 | SOC 4490 |
|  | PSY 532C | DEP 5405 | RES 507C | REE 5221 | SOC 436 | SOC 4331 |
|  | PSY 540 | INP 5835 | RES 511C | REE 5730 | SOC 441 | SOC 4301 |
|  | PSY 541 | PSB 5034 | RES 513C | REE 5800 | SOC 442 | SOC 4423 |
|  | PSY 542 | PSB 5035 | RES 515C | REE 5121 | SOC 445C | SOC 4407 |
|  | PSY 547 | EXP 5406 | RES 592C | REE 5750 | SOC 446C | SOC 4271 |
|  | PSY 549 | EXP 5005C | RES 670 | REE 6111 | SOC 451 | SOC 4310 |
|  | PSY 560 | CLP 5175 | RES 671 | REE 6020 | SOC 452C | SOC 4320 |
|  | PSY 561 | CLP 5185 | RES 672 | REE 6021 | SOC 455 | SOC 4265 |
|  | PSY 563 | CLP 5166 | RES 674 | REE 6820 | SOC 456 | SOC 4243 |
|  | PSY 564C | CLP 5931 | RES 675 | REE 6935 | SOC 461 | SOC 4410 |
|  | PSY 564C | PSY 5930 | RES 685 | REE 6295 | SOC 462 | SOC 4406 |
| (1) | PSY 565C | EAB 5655 | RES 686 | REE 6195 | SOC 463 | MAF 4510 |
| 0 | PSY 570 | SOP 5058 | RES 687 | REE 6715 | SOC 464 | MAF 4511 |
| 3 | PSY 580 | PSY 5939 | RES 688 | REE 6795 | SOC 465C | SOC 4408 |
| 3 | PSY 601 | EDP 6935 | RES 689 | REE 6395 | SOC 466C | SOC 4463 |
| (1) | PSY 620C | CYP 6936 | RES 693 | REE 6906 | SOC 467C | SOC 4613 |
|  | PSY 621 | CYP 6536 | RES 695 | REE 6946 | SOC 470C | SOC 4550 |
| + | PSY 629L | CYP 6956 | RES 697 | REE 6932 | SOC 471 | SOC 4745 |
| 0 | PSY 699L | PSY 6971 | RG 290 | REA 2930 | SOC 472 | SOC 4705 |
|  |  |  | RUS 301C | RUS 3100 | SOC 473C | HUS 4413 |
| - | REL 300 | REL 3020 | RUS 302C | RUS 3101 | SOC 474 | SOC 4480 |
|  | REL 301 | REL 3410 | RUS 303C | RUS 3102 | SOC 475 | SOC 4267 |
|  | REL 302 | REL 3160 |  |  | SOC 476 | SOC 4464 |
|  | REL 303 | REL 3161 | SOC 301 | SOC 3000 | SOC 477 | SOC 4230 |
| 4 | REL 304C | REL 3442 | SOC 302 | SOC 3001 | SOC 478 | SOC 4211 |
| L | REL 305 | REL 3464 | SOC 311 | SOC 3830 | SOC 479 | SOC 4221 |
|  | REL 306 | REL 3172 | SOC 312 | SOC 3820 | SOC 480C | SOC 4214 |
|  | REL 310 | REL 3210 | SOC 313 | SOC 3850 | SOC 481 | SOC 4620 |
|  | REL 312 | REL 3224 | SOC 321 | SOC 3150 | SOC 482C | SOC 4741 |
| (1) | REL 315 | REL 3250 | SOC 322 | SOC 3130 | SOC 483 | SOC 4540 |
| - | REL 317 | REL 3252 | SOC 323 | SOC 3110 | SOC 484C | SOC 4428 |
| C | REL 320 | REL 3300 | SOC 331 | SOC 3380 | SOC 485C | SOC 4475 |
| (1) | REL 323 | REL 3600 | SOC 332 | SOC 3380 | SOC 486 | SOC 4930 |
| (1) | REL 326 | REL 3510 | SOC 333 | SOC 3380 | SOC 491 | SOC 4440 |
| 4 | REL 328 | REL 3532 | SOC 334 | SOC 3380 | SOC 492 | SOC 4652 |
| (1) | REL 329 | REL 3540 | SOC 335 | SOC 3380 | SOC 493 | SOC 4002 |
| 0 | REL 340 | REL 3665 | SOC 341 | SOC 3300 | SOC 494 | SOC 4640 |
|  | REL 341 | REL 3270 | SOC 342 | SOC 3424 | SOC 495 | SOC 4653 |
| 0 | REL 350 | REL 3175 | SOC 343 | SOC 3281 | SOC 496 | SOC 4746 |
|  | REL 400 | REL 4485 | SOC 345C | SOC 3828 | SOC 497 | SOC 4931 |
|  | REL 403 | REL 4461 | SOC 351 | DHE 3101 | SOC 498C | SOC 4905 |
| 0 | REL. 405 | REL 4463 | SOC 352 | DHE 3300 | SOC 499 | SOC 4941 |
|  | REL 406 | REL 4185 | SOC 361 | SOC 3201 | SOC 511C | SOC 5658 |
|  | REL 407 | REL 4493 | SOC 363 | MAF 3210 | SOC 511C | SOC 6651 |
|  | REL 409 | REL 4411 | SOC 371 | SOC 3020 | SOC 572 | SOC 5140 |
|  | REL 420 | REL 4420 | SOC 381 | SOC 3402 | SOC 581 | SOC 5261 |
|  | REL 426 | REL 4481 | SOC 402 | SOC 4504 | SOC 582 | SOC 5284 |
|  | REL 429 | REL 4430 | SOC 403 | SOC 4611 | SOC 586 | SOC 5656 |
|  | REL 445 | REL 4183 | SOC 404C | SOC 4829 | SOC 587 | SOC 5255 |
|  | REL 450 | REL 4496 | SOC 405C | SOC 4610 | SOC 589 | SOC 5264 |
|  | REL 460 | REL 4808 | SOC 406 | SOC 4003 | SOC 590 | SOC 5316 |
|  | REL 490 | REL 4910 | SOC 411 | SOC 4833 | SOC 591 | SOC 5909 |
|  | REL 495 | REL 4931 | SOC 412 | SOC 4842 | SOC 592 | SOC 5941 |
|  | REL 591 | REL 5937 | SOC 413 | SOC 4841 | SOW 301 | SOW 3203 |
|  | RES 390 | REE 3040 | SOC 414 | SOC 4004 | SOW 302 | SOW 3232 |
|  | RES 391 | REE 3430 | SOC 421C | SOC 4251 | SOW 305 | SOW 3113 |
|  | RES 407 | REE 4140 | SOC 422 | SOC 4835 | SOW 306 | SOW 3703 |
|  | RES 409 | REE 4310 | SOC 431 | SOC 4490 | SOW 307 | SOW 3313 |
|  | RES 493 | REE 4905 | SOC 432 | SOC 4490 | SOW 308 | SOW 3511 |


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| Prefix \& |  |
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SOW 309
SOW 317 SOW 401 SOW 402 SOW 405 SOW 405C SOW 407 SOW 408 SOW 409 SOW 417 SOW 420 SOW 480 SOW 485 SOW 492 SOW 495 SOW 496 SOW 499 SOW 500 SOW 501 SOW 511 SOW 515 sow 530 SOW 533
SOW 596
SOW 502C
SPA 301 SPA 302 SPA 303 SPA 304 SPA 305 SPA 306 SPA 306
SPA 307 SPA 308C SPA 309C
SPA 315
SPA 325
SPA 326
SPA 327
SPA 328
SPA 335
SPA 336
SPA 355
SPA 356
SPA 357
SPA 359
SPA 360
SPA 397
SPA 398C
SPA 399
SPA 405
SPA 406
SPA 407
SPA 411

SOW 3522
SOW 3350 SOW 4403 SOW 4233
SOW 4133
SOW 4125C
SOW 4322
SOW 4512
SOW 4523
SOW 4332
SOW 4514
SOW 4193
SOW 4621
SOW 4242
SOW 4905
SOW 4905
SOW 4675
SOW 5914 SOW 5435 SOW 5436 SOW 5354 SOW 5684 SOW 5643 SOW 5217
SOW 5272
SPN 3120
SPN 3121
SPN 3122
SPN 3200
SPN 3201
SPN 3820
SPW 3820
SPN 3780
SPN 3705 SPN 3733
SPT 3810
SPN 3420
SPN 3421
SPN 3415
SPT 3800
SPN 3840
SPN 3820
SPW 3580
SPW 3582
SPW 3584
SPW 3520
SPN 3500
SPW 3930
SPN 3905
SPN 3270
SPW 4590
SPW 4390
SPW 4790
SPN 4013
Current

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SPA 428
SPA 438
SPA 455
SPA 460
SPA $465 C$
SPA 475 C
SPA 476C
SPA 478C SPA 497
SPA 498C
SPA 499
SPA 501
SPA 502
SPA 505
SPA 506
SPA 510C
SPA 515
SPA 527
SPA 528
SPA 556C
SPA 570
SPA 579C
SPE 305
TEY 320
THE 305
THE 315
THE 316
THE 317
THE 317
THE 325
THE 328
THE 335
THE 336
THE 337
THE 345
THE 352
THE 353
THE 357
THE 357
THE 358
THE 358
THE 417C
THE 425
THE 427
THE 431
THE 432
THE 435
THE 445
THE 451
THE 452
THE 458
THE 465
THE 475
New
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Number

SPT 4801
SPW 4810
SPN 4936
SPN 4501
SPW 4152
SPN 4790
SPN 4800
FLE 4873 SPW 4930 SPN 4905 SPN 4470 SPN 5060 SPN 5061 SPN 5930 SPW 5391 SPW 5155 SPW 5934 SPN 5416 SPT 5802 SPT 5118 SPW 5936 SPN 5565 SPC 3600

OTH 3123
THE 3000 TPP 3700 ORI 3000 TPP 3100 TPP 3730 TPP 3310 THE 3051 TPA 3200 TPA 3220 TPA 3250 TPA 3010 THE 3510 THE 3511 THE 3071 FIL 3506 FIL 3200 THE 3075 TPP 4230L TPP 4311 THE 4820 TPA 4230 TPA 4231 TPA 4201 TPA 4061 THE 4110 THE 4111 THE 4076 TPP 4600 TPA 4400

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| :---: | :---: |
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| Prefix \& |  |
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THE 485 THE 4950
THE 487C TPA 4260
THE 488 TPA 4054
THE 495 THE 4916
THE 585C THE 5940
THE 595C THE 5916
TRA 405 TRA 4240
TRA 406 TRA 4510
TRA 408 TRA 4320
TRA 410 TRA 4101
TRA 417 TRA 4203
TRA 419 TRA 4012
TRA 441 TRA 4410
TRA 442 TRA 4411
TRA 443 TRA 4412
TRA 492 TRA 4320
TRA 493 TRA 4906
TRA 495 TRA 4941
TRA 497 TRA 4936
TRA 501 TRA 5601
TRA 507 TRA 5401
TRA 515 TRA 5245
TRA 600 TRA 6035
TRA 693 TRA 6905
TRA 697
TTM 301
TTM 303
TTM 304
TTM 305
TTM 306
TTM 307
TTM 308
TTM 309
TTM 310
TTM 312
TTM 404
TRA 6936
HFT 3700
HFT 3722
HFT 3727
HFT 3733 HFT 3753 HFT 3713 HFT 3941 HFT 3945 HFT 3793 HFT 4465

UPT 511 URP 5312
UPT 615 URP 6222
URB 401C URP 4006
URB 405C URP 4055
URB 415C URP 4023
URB 416C URP 4027
URB 493C URP 4905
URB 497C URP 4930
URB 503 URP 5057
URB 505C URP 5881
URB510C GEO 5605
URB 511C URP 5312
URB 535C DHE 5434
URB 585C URS 5925
URB 600C URS 6000
URB 693C URP 6905
URB 697C URP 6934

## FIU To Statewide

# FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM 

# CROSS REFERENCE TABLE STATEWIDE COURSE PREFIX and NUMBER TO FLORIDA INTERNATIONAL UNIVERSITY 

This catalog incorporates changes in the Florida International University curriculum as of February, 1978. Subsequent changes will be incorporated into supplimentary publications available from the office of Student Academic Services.

| New Statewide Prefix \& Number | Current FIU <br>  <br> Number |
| :---: | :---: |
| ACC 3300 | ACC 30 |
| ACC 3300 | BUA 300C |
| ACC 3303 | BUA 307 |
| ACC 3882 | ACC 301 |
| ACC 3949 | COE 325 |
| ACC 4101 | ACC 401 |
| ACC 4121 | ACC 402 |
| ACC 4201 | ACC 403 |
| ACC 4248 | ACC 424 |
| ACC 4271 | ACC 419 |
| ACC 4301 | ACC 405 |
| ACC 4348 | ACC 425 |
| ACC 4501 | ACC 406 |
| ACC 4522 | ACC 414C |
| ACC 4548 | ACC 413 |
| ACC 4601 | ACC 407 |
| ACC 4648 | ACC 412 |
| ACC 4731 | ACC 408 |
| ACC 4803 | ACC 417 |
| ACC 4905 | ACC 493 |
| ACC 4930 | ACC 497 |
| ACC 4949 | COE 425 |
| ACC 5111 | ACC 502 |
| ACC 5131 | ACC 503 |
| ACC 5211 | ACC 517 |
| ACC 5311 | ACC 501 |
| ACC 5511 | ACC 513 |
| ACC 5611 | ACC 512 |
| ACC 5734 | ACC 508 |
| ACC 5865 | ACC 506 |
| ACC 6011 | MBA 605 |
| ACC 6275 | ACC 616 |
| ACC 6291 | ACC 610 |
| ACC 6313 | MBA 627 |
| ACC 6391 | ACC 607 |
| ACC 6411 | ACC 606 |
| ACC 6512 | ACC 613 |
| ACC 6513 | MBA 613 |
| ACC 6531 | ACC 614 |
| ACC 6553 | ACC 615 |
| ACC 6554 | ACC 620 |
| ACC 6555 | ACC 621 |
| ACC 6556 | ACC 622 |


| New Statewide Prefix \& Number | Current FIU <br>  <br> Number |
| :---: | :---: |
| ACC 6557 | ACC 623 |
| ACC 6558 | ACC 624 |
| ACC 6559 | ACC 625 |
| ACC 6582 | ACC 626 |
| ACC 6612 | MBA 612 |
| ACC 6651 | ACC 612 |
| ACC 6735 | ACC 602 |
| ACC 6745 | ACC 603 |
| ACC 6822 | ACC 630 |
| ACC 6832 | ACC 631 |
| ACC 6845 | ACC 608C |
| ACC 6907 | ACC 693 |
| ACC 6910 | ACC 695 |
| ACC 6932 | ACC 611 |
| ACC 6935 | ACC 697 |
| ADE 5081 | EAD 507 |
| ADE 5180 | EAD 519 |
| ADE 5195 | EAD 510 |
| ADE 5260 | EAD 508 |
| ADE 5383 | EAD 520 |
| ADE 5385 | EAD 509 |
| ADE 5906 | EAD 595 |
| ADE 5925 | EAD 525 |
| ADE 5935 | EAD 526 |
| ADE 5935 | EAD 534 |
| ADE 5935 | EAD 533 |
| ADE 5935 | EAD 532 |
| ADE 5935 | EAD 531 |
| ADE 5935 | EAD 530 |
| ADE 5935 | EAD 529 |
| ADE 5935 | EAD 528 |
| ADE 5935 | EAD 527 |
| ADE 5935 | EAD 549 |
| ADE 5935 | EAD 548 |
| ADE 5935 | EAD 547 |
| ADE 5935 | EAD 546 |
| ADE 5935 | EAD 545 |
| ADE 5935 | EAD 544 |
| ADE 5935 | EAD 543 |
| ADE 5935 | EAD 542 |
| ADE 5935 | EAD 541 |
| ADE 5935 | EAD 540 |
| ADE 5935 | EAD 539 |

New
Statewide
Prefix \&
Number

ADE 5935
ADE 5935
ADE 5935
ADE 5935
ADE 5935
ADE 5945
ADE 6930
AFR 3201
AFR 3210
AFR 4220
AFR 4230
AMH 3130
AMH 3170
AMH 3251
AMH 3270
AMH 3275
AMH 3317
AMH 3331
AMH 3332
AMH 3354
AMH 3355
AMH 3420
AMH 3428
AMH 3440
AMH 3500
AMH 3560
AMH 3570
AMH 4025
AMH 4030
AMH 4110
AMH 4150
AMH 4930
AMH 4930
AMH 4930
AMH 4930
AMH 4930
AMH 4930
AMH 4930
AMH 4930
AMH 4930
AML 4144
AML 4144
AML 4144

## Current FIU Prefix \&

 NumberEAD 538
EAD 537 EAD 536 EAD 535 EAD 550 EAD 596 EAD 697 AIS 301C AIS 302C AIS 401C AIS 402C HIS 327 HIS 328 HIS 331 HIS 332 HIS 333 HIS 347 HIS 345 HIS 346 HIS 329 HIS 330 HIS 349 HIS 351 HIS 325 HIS 334 HIS 348 HIS 322 HIS 442 HIS 443 HIS 440 HIS 441 HIS 451 HIS 453 HIS 454 HIS 455 HIS 456 HIS 457 HIS 458 HIS 459 HIS 452 ENG 435 ENG 436 ENG 437
New
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Prefix \&
Number
Current
FIU
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AML 4144 AML 4144 AML 4144 AML 5212 AML 5212 AML 5212 AML 5212 AML 5212 AML 5212 AML 5212 AML 5212 AML 5212 ANT 4224 ANT 3000 ANT 3004 ANT 3086 ANT 3144 ANT 3241 ANT 325 1
ANT 3262 ANT 3263 ANT 3302 ANT 3402 ANT 3403 ANT 3422 ANT 3425 ANT 3432 ANT 3435 ANT 3442 ANT 3462 ANT 3476 ANT 3500 ANT 3512 ANT 3542 ANT 3733 ANT 4007 ANT 4211 ANT 4242 ANT 4243 ANT 4273 ANT 4305 ANT 4306 ANT 4312 ANT 4314 ANT 4315 ANT 4324 ANT 4328 ANT 4332 ANT 4340 ANT 4343 ANT 4352 ANT 4360 ANT 4361 ANT 4405 ANT 4406 ANT 4433 ANT 4451 ANT 4452 ANT 4453 ANT 4454 ANT 4460 ANT 4469

ENG 439
ENG 438
ENG 440
ENG 510
ENG 507
ENG 506
ENG 505
ENG 502
ENG 501
ENG 500
ENG 509
ENG 508
ANT 418 C
ANT 301
ANT 304
ASC 301
ANT 303C
ANT 326
ANT 327
ANT 313C
ANT 413C
ANT 366
ANT 311 C
ANT 365
ANT 325
ANT 385
ANT 337
ANT 370C
ANT 335
ANT 355
ANT 328
ANT 302
ANT 305
ANT 356C
ANT 386C
ANT 415
ANT 425
ANT 466
ANT 467C
ANT 405C
ANT 475
ANT 440C
ANT 438C
ANT 424
ANT 423
ANT 430C
ANT 429
ANT 421
ANT 420
ANT 422
ANT 426 ANT 427
ANT 428
ANT 450C ANT 469C
ANT 437C
ANT 403
ANT 411
ANT 412
ANT 439C
ANT 456C
ANT 455C

## New Statewide Prefix \& Number

Current
FIU
Prefix \&
Number

ANT 4474 ANT 4705 ANT 4723 ANT 4750 ANT 4907 ANT 4908 ANT 4930 ANT 4930 ANT 4930 ANT 4930 ANT 4930 ANT 4930 ANT 4930 ANT 4930 ANT 4930 ANT 4930 ANT 4930 ANT 4944 ANT 5466 ANT 5468 ANT 5726 ANT 5908 ANT 5915 ANT 5937 APB 3253 APB 5933 ARC 3210 ARC 3450 ARC 3466 ARC 3484 ARC 3586 ARC 3786 ARC 4039 ARC 4270 ARC 4335 ARC 4336 ARC 4485 ARC 4590 ARC 5916 ARE 3313 ARE 4316 ARE 4341 ARE 4940 ARE 5251 ARE 5905 ARE 6140 ARE 6262 ARE 6304 ARE 6315 ARE 6706 ARE 6926 ARH 4170 ARH 4301 ARH 4410
ARH 4431 ARH 4470 ARH 4552
ARH 4610 ARH 4800 ARH 4905
ARH 4910 ARH 4931

ANT 485
ANT 400
ANT 401
ANT 444C
ANT 491
ANT 492
ANT 431C ANT 474C
ANT 446
ANT 432C
ANT 433C
ANT 434C
ANT 435C
ANT 470C
ANT 471C
ANT 472C
ANT 473C
ANT 461C
ANT 555
ANT 557
ANT 522
ANT 591
ANT 592
ANT 501
BSC 306C
BSC 502C
CSN 370
CSN 375
CSN 304
CSN 376
CSN 328
CSN 385
CSN 479
CSN 482
CSN 407
CSN 471
CSN 480
CSN 457
CSN 570
EEL 318
EAR 405
EAR 416
EAR 425
EAR 505
EAR 595C
EAR 605
EAR 607
ECE 618
EEL 618 EAR 609
EAR 697C
ARH 435C
ARH 455C
ARH 476C
ARH 466C
ARH 475
ARH 416 C
ARH 467
ARH 477C
ARH 485
ARH 495
ARH 478

## New Statewide Prefix \& Number

ARH 5172
ARH 5303 ARH 5412
ARH 5432
ARH 5555 ARH 5615 ARH 5812 ARH 5907 ARH 5913 ART 3111 ART 3150 ART 3202 ART 3203 ART 3310 ART 3331 ART 3401 ART 3510 ART 3601 ART 3630 ART 3631 ART 3651 ART 3702 ART 3904 ART 3905 ART 4114 ART 4151 ART 4320 ART 4332 ART 4402 ART 4532 ART 4604 ART 4632 ART 4652 ART 4703
ART 4906
ART 4910
ART 4955
ART 5125
ART 5159
ART 5340
ART 5341
ART 5403
ART 5580
ART 5620
ART 5660
ART 5730
ART 5907
ART 5910
ARV 3210
ARV 4150
ARV 4250
AST 3025
AST 3100
AST 3213
BCH 3033
BCH 3930
BCH 5213
BCH 5315
BCH 5345
BCH 6506
BCN 3210

## Current FIU <br> Prefix ${ }^{\text {\& }}$ Number

## ARH 535

ARH 555
ARH 576
ARH 566
ARH 516
ARH 567
ARH 577
ARH 585
ARH 595
FIA 361
FIA 337
FIA 305C
FIA 306C
FIA 315
FIA 316
FIA 345
FIA 325
FIA 355
FIA 357
FIA 358
FIA 375
FIA 335
FIA 385
FIA 395
FIA 465
FIA 437C
FIA 415
FIA 416
FIA 445C
FIA 425
FIA 455
FIA 458
FIA 475
FIA 435
FIA 485
FIA 495
FIA 490L
FIA 565
FIA 537
FIA 515
FIA 516
FIA 545C
FIA 525
FIA 555
FIA 575
FIA 535
FIA 585
FIA 595
IAT 307C
IAT 408 C
IAT 407 C
PHY 307
EAS 309C
EAS 310C
BSC 301L
BSC 301D
BSC 508C
BSC 507C
BSC 509C

|  | New Statewide Prefix \& Number | Current FIU Prefix \& Number | New Statewide Prefix \& Number | Current FIU Prefix \& Number | New Statewide Prefix \& Number | Current FIU <br> Prefix \& Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BCN 3240 | CSN 306 | CCJ 3100 | CRJ 302 | CHM 3030 | CHE 308 |
|  | BCN 3257 | CSN 380C | CCJ 3270 | CRJ 304 | CHM 3030 | CHE 308L |
|  | BCN 3402 | CSN 350 | CCJ 3290 | CRJ 303 | CHM 3045 | CHE 305 |
|  | BCN 3521 | EET 314 | CCJ 3291 | CRJ 314 | CHM 3045 | CHE 305L |
|  | BCN 3560 | MET 360 | CCJ 3300 | CRJ 306 | CHM 3046 | CHE 306 |
|  | BCN 3611 | CSN 320 | CCJ 3320 | CRJ 309C | CHM 3046 | CHE 306L |
|  | BCN 3640 | CSN 331 | CCJ 3340 | CRJ 308C | CHM 3120 | CHE 312 |
|  | BCN 3702 | IAT 305C | CCJ 3341 | CRJ 310C | CHM 3120 | CHE 312L |
|  | BCN 3703 | CSN 330 | CCJ 3450 | CRJ 311 | CHM 3200 | CHE 309 |
|  | BCN 3706 | CSN 372C | CCJ 3460 | CRJ 312 | CHM 3200 | CHE 309L |
|  | BCN 3720 | CSN 322 | CCJ 3461 | CRJ 315C | CHM 3210 | CHE 301 |
|  | BCN 3730 | ITE 351 | CCJ 3470 | CRJ 313 | CHM 3210 | CHE 301L |
|  | BCN 3740 | CSN 332 | CCJ 3530 | CRJ 321 | CHM 3211 | CHE 302 |
|  | BCN 3761 | CSN 377C | CCJ 3600 | CRJ 301 | CHM 3211 | CHE 302L |
|  | BCN 3762 | CSN 326 | CCJ 3700 | CRJ 307C | CHM 3400 | CHE 311 |
| 11 | BCN 4033 | IAT 406C | CCJ 3934 | CRJ 395 | CHM 3400 | CHE 311L |
|  | BCN 4251 | IAT 420C | CCJ 3949 | COE 350 | CHM 3410 | CHE 321 |
| - | BCN 4260 | CSN 429 | CCJ 4130 | CRJ 406 | CHM 3410 | CHE 325L |
|  | BCN 4431 | CSN 451C | CCJ 4250 | CRJ 430 | CHM 3411 | CHE 322 |
|  | BCN 4452 | CSN 450 | CCJ 4280 | CRJ 410 | CHM 3411 | CHE 326L |
| (1) | BCN 4473 | CSN 428C | CCJ 4281 | CRJ 408C | CHM 3412 | CHE 323 |
| $\bigcirc$ | BCN 4707 | CSN 470C | CCJ 4330 | CRJ 421 | CHM 3412 | CHE 327L |
|  | BCN 4741 | CSN 426 | CCJ 4400 | CRJ 403 | CHM 4090 | CHE 332L |
|  | BCN 5022 | CSN 572C | CCJ 4440 | CRJ 422 | CHM 4130 | CHE 412 |
| (1) | BCN 5022 | BSC 572C | CCJ 4462 | CRJ 414C | CHM 4130 | CHE 412L |
|  | BOT 3353 | BSC 362C | CCJ 4630 | CRJ 404 | CHM 4180 | CHE 487 |
| + | BOT 3353 | BSC 362L | CCJ 4661 | CRJ 411 | CHM 4220 | CHE 403 |
| 0 | BOT 3503 | BSC 365C | CCJ 4662 | CRJ 412 | CHM 4230 | CHE 427L |
|  | BOT 3663 | BSC 320C | CCJ 4663 | CRJ 413C | CHM 4300 | CHE 404 |
|  | BOT 3663 | BSC 320L | CCJ 4900 | CRJ 495 | CHM 4310 | CHE 481 |
|  | BOT 3823 | BSC 364C | CCJ 4910 | CRJ 496 | CHM 4320 | CHE 428L |
| (1) | BOT 3935 | BSC 329L | CCJ 4940 | CRJ 440 | CHM 4460 | CHE 406 |
| 0 | BOT 3935 | BSC 329C | CCJ 4949 | COE 450 | CHM 4490 | CHE 405 |
|  | BOT 5575 | BSC 545C | CCJ 6050 | CRJ 629 | CHM 4580 | CHE 483 |
| (1) | BOT 5575 | BSC 545L | CCJ 6055 | CRJ 600C | CHM 4610 | CHE 431 |
| 2 | BOT 5665 | BSC 570C | CCJ 6105 | CRJ 623C | CHM 4680 | CHE 485 |
| (1) | BOT 5665 | BSC 570L | CCJ 6285 | CRJ 627C | CHM 4910 | CHE 491L |
|  | BOT 6536 | BSC 665C | CCJ 6365 | CRJ 624C | CHM 4911 | CHE 492L |
| 0 | BSC 3023 | BSC 300C | CCJ 6456 | CRJ 607C | CHM 4912 | CHE 493L |
| $\underline{\square}$ | BSC 3033 | BSC 305C | CCJ 6457 | CRJ 606C | CHM 4930 | CHE 495 |
| ) | BSC 3913 | BSC 380 | CCJ 6467 | CRJ 605C | CHM 5181 | CHE 587 |
| 0 | BSC 3933 | BSC 381C | CCJ 6468 | CRJ 621 | CHM 5250 | CHE 521C |
| - | BSC 3934 | BSC 481 | CCJ 6476 | CRJ 602C | CHM 5260 | CHE 526C |
|  | BSC 4914 | BSC 480 | CCJ 6477 | CRJ 601 | CHM 5280 | CHE 524C |
| 0 | BSC 5931 | BSC 590C | CCJ 6485 | CRJ 611C | CHM 5380 | CHE 481 |
|  | BSC 5931 | BSC 490 | CCJ 6486 | CRJ 608 | CHM 5381 | CHE 581 |
|  | BSC 6916 | BSC 680L | CCJ 6495 | CRJ 625C | CHM 5440 | CHE 507 |
|  | BUL 4100 | LAW 410 | CCJ 6525 | CRJ 628C | CHM 5517 | CHE 540 |
|  | BUL 4111 | LAW 401 | CCJ 6635 | CRJ 622C | CHM 5581 | CHE 583 |
|  | BUL 4112 | LAW 402 | CCJ 6665 | CRJ 626C | CHM 5650 | CHE 532C |
|  | BUL 4650 | LAW 497 | CCJ 6706 | CRJ 603 | CHM 5681 | CHE 585 |
|  | BUL 4661 | LAW 407 | CCJ 6709 | CRJ 604C | CHS 4100 | CHE 436 |
|  | BUL 4905 | LAW 493 | CCJ 6716 | CRJ 610C | CHS 4100 | CHE 437L |
|  | BUL 6124 | LAW 600 | CCJ 6945 | CRJ 620C | CIS 3000 | BUA 306 |
|  | BUL 6651 | LAW 697 | CCJ 6971 | CRJ 697C | CIS 3905 | MAS 395 |
|  | BUL 6906 | LAW 693 | CDA 3040 | MAS 314 | CIS 3932 | MAS 398 |
|  |  |  | CDA 4101 | MAS 403 | CIS 4905 | MAS 495 |
|  | CAP 3210 | CSN 365C | CDA 4163 | MAS 416C | CIS 4906 | MAS 495 |
|  | CAP 4721 | MAS 418 | CDA 4171 | MAS 417 | CIS 4932 | MAS 498 |
|  | CAP 5202 | MAS 502C | CHD 3220 | FCD 301 | CIS 5934 | MAS 598 |
|  | CAP 5211 | CSN 565C | CHD 4230 | FCD 401 | CIS 0000 | MAS 598 |
|  | CCJ 3020 | CRJ 300 | CHD 5264 | FCD 501 | CIS 6204 | PAD 631 |

New
Statewide
Prefix \&
Number

CLP 3004 CLP 4144 CLP 4374 CLP 5166 CLP 5175 CLP 5185 CLP 5931 COA 3130 COA 3410 COA 3411 COA 4440 COA 4460 COA 4942 COA 5450 COC 3300 COC 3400 COP 3110 COP 3120 COP 3170 COP 3172 COP 3201 COP 3201 COP 3400 COP 3400 COP 3401 COP 3500 COP 3530 COP 4610 COP 5540 COP 5640 COT 4320 CPO 3002 CPO 3302 CPO 3304 CPO 3323 CPO 3326 CPO 3333 CPO 3513 CPO 3514 CPO 3553 CPO 3643 CPO 4005 CPO 4034 CPO 4055 CPO 4072 CPO 4103 CPO 4327 CPO 4360 CPO 4930 CRW 4240 CRW 4340 CTE 3310 CTE 3312 CTE 3401 CTE 3602 CTE 3852 CTE 4340 CTE 4352 CTE 4421 CTE 4741 CTE 4761 CTE 4821
Current
FIU
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Number

PSY 362
PSY 461
PSY 465
PSY 563
PSY 560
PSY 561
PSY 564C
HMF 301
HMF 306
HRM 312
HMF 407
HMF 410
HMF 495
HMF 510
MAS 316
MAS 310 MAS 311C
MAS 319
MAS 300C
MAS 323
MAS 323C
MAS 315
MAS 312
MAS 324C
MAS 324
MAS 313
MAS 377
MAS 415
MAS 516 C
MAS 518
MAS 475
POS 305C
POS 304
POS 326C
POS 307C
INR 341 C
POS 316
POS 308
POS 310C
POS 309C
POS 313C
POS 488
POS 404C
POS 441 C
POS 460
POS 405
POS 409C
POS 403C
POS 486C
ENG 416
ENG 415
CLT 335
CLT 301
CLT 337
CLT 325
CLT 302
CLT 435
CLT 438
CLT 444
CLT 425
CLT 437
CLT 401

| New | Current |
| :---: | :--- |
| Statewide | FIU |
| Prefix \& |  |
| Number | Number |

CTE 4827 CTE 4880 CTE 4890 CTE 4905 CTE 4930 CTE 5345 CTE 5355 CTE 5422 CTE 5746 CTE 5905 CTE 5930 CYP 3003
CYP 4933 CYP 4953 CYP 5515 CYP 5526 CYP 5535 CYP 5954 CYP 6536 CYP 6936
CYP 6956
DAA 3820
DAA 4821
DEP 3000
DEP 3001
DEP 3303
DEP 3402
DEP 4044
DEP 4163
DEP 4164
DEP 4204
DEP 4213
DEP 4464
DEP 4704
DEP 5045
DEP 5145
DEP 5405
DHE 3101
DHE 3300
DHE 5434
DIE 3005
DIE 3125
DIE 3175
DIE 3245
DIE 3275
DIE 4195
DIE 4296
DIE 4317
DIE 4365
DIE 4377
DIE 4435
DIE 4436
DIE 4506
DIE 4536
DIE 5247
DIE 5926
DIE 6128
DIE 6568
DIE 6578
DIE 6907
DIE 6908

CLT 403
CLT 440
CLT 402
CLT 495
CLT 497
CLT 535C
CLT 538
CLT 536
CLT 534
CLT 595
CLT 537
PSY 320
PSY 421
PSY 429
PSY 521C
PSY 522 PSY 520C
PSY 529
PSY 621
PSY 620C
PSY 629L
DAN 315R
DAN 415R
PSY 307
PSY 330
PSY 331
PSY 332
PSY 435
PSY 431
PSY 432
PSY 427C PSY 467C
PSY 434
PSY 439
PSY 510
PSY 530
PSY 532C
SOC 351
SOC 352
URB 535C
DIN 300
DIN 320
DIN 321
DIN 330
DIN 331
DIN 453
DIN 452
DIN 440
DIN 441
DIN 442
DIN 450 DIN 450L
DIN 490
DIN 451
DIN 530
DIN 560
DIN 620
DIN 691
DIN 693
DIN 650
DIN 695


Current FIU Prefix \& Number

## DIE 6937 DIN 600C

DIE 6971 DIN 699C
EAB 4794
EAB 5655
ECO 3003
ECO 3040
ECO 3101
ECO 3202
ECO 3203
ECO 3223
ECO 3303
ECO 3432
ECO 4134
ECO 4224
ECO 4225
ECO 4307
ECO 4401
ECO 4422
ECO 4504
ECO 4603
ECO 4622
ECO 4623
ECO 4632
ECO 4701
ECO 4703
ECO 4713
ECO 4733
ECO 4902
ECO 4902
ECO 4902
ECO 4906
ECO 5216
ECO 5423
ECO 5906
ECO 5906
ECO 5906
ECO 5906
ECO 6115
ECO 6236
ECO 6938
ECO 6938
ECP 3123
ECP 3144
ECP 3303
ECP 3613
ECP 3623
ECP 4003
ECP 4004
ECP 4013
ECP 4203
ECP 4222
ECP 4314
ECP 4403
ECP 4433
ECP 4515
ECP 4534
ECP 5605
ECP 6704
ECP 6704
ECS 3003
ECS 3402

PSY 413
PSY 565C
ECO 301
ECO 305
ECO 307
BUA 311C
ECO 308
ECO 306
ECO 312
ECO 311
ECO 432
ECO 426
ECO 436
ECO 412
ECO 430
ECO 431
ECO 425
ECO 418
ECO 416
ECO 417
ECO 415
ECO 437
ECO 438
ECO 439
ECO 440
ECO 460
ECO 461C
ECO 462C
ECO 463C
ECO 507
ECO 531
ECO 560
ECO 561C
ECO 562C
ECO 563C
ECO 665
ECO 626
ECO 666
ECO 660
ECO 328
ECO 329
ECO 319
ECO 320
ECO 321
ECO 444
ECO 467
ECO 441
ECO 428
ECO 429
ECO 421
ECO 424
ECO 422
ECO 435
ECO 434
ECO 520
ECO 606
MBA 606C
ECO 313
ECO 304

|  | New Statewide Prefix \& Number | Current FIU Prefix \& Number | New Statewide Prefix \& Number | Current FIU Prefix \& Number | New <br> Statewide Prefix \& Number | Current FIU <br> Prefix \& Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECS 3440 | ECO 316 | EED 6226 | EEC 617 | ENG 3101 | ENG 364 |
|  | ECS 4013 | ECO 410 | EED 6937 | EEC 696C | ENG 3101 | ENG 370 |
|  | ECS 4014 | ECO 413 | EEX 3010 | EEC 306 | ENG 3101 | ENG 365 |
|  | ECS 4024 | ECO 411 | EEX 3202 | EEC 316 | ENG 3101 | ENG 367 |
|  | ECS 4044 | ECO 414 | EEX 3221 | EEC 315 | ENG 3101 | ENG 362 |
|  | ECS 4403 | ECO 455 | EEX 4241 | EEC 405 | ENG 3101 | ENG 368 |
|  | ECS 4403 | ECO 454 | EEX 4242 | EEC 406 | ENG 3101 | ENG 363 |
|  | ECS 4404 | ECO 456 | EEX 4601 | EEC 411 | ENG 3101 | ENG 360 |
|  | ECS 4430 | ECO 403 | EEX 4611 | EEC 412 | ENG 3101 | ENG 361 |
|  | ECS 4432 | ECO 408 | EEX 4861 | EEC 425 | ENG 3101 | ENG 366 |
|  | ECS 4433 | ECO 409 | EEX 4882 | EVO 419C | ENG 3137 | ENG 314 |
|  | ECS 5025 | ECO 510 | EEX 4905 | EEC 498C | ENG 3500 | ENG 320 |
|  | EDA 6061 | EDA 605 | EEX 5771 | HMF 506 | ENG 4103 | ENG 407 |
|  | EDA 6223 | EDA 617 | EEX 6051 | EEC 608 | ENG 4103 | ENG 401 |
| 5 | EDA 6510 | EDA 606C | EEX 6106 | EEC 612C | ENG 4103 | ENG 402 |
| 11 | EDA 6530 | EDA 607C | EEX 6211 | PPS 621 | ENG 4103 | ENG 410 |
| $\underline{L}$ | EDA 6905 | EDA 698 | EEX 6227 | EEC 611C | ENG 4103 | ENG 409 |
| - | EDA 6928 | EDA 697 | EEX 6612 | EEC 610C | ENG 4103 | ENG 405 |
| , | EDA 6930 | EDA 696 | EEX 6736 | EEC 614C | ENG 4103 | ENG 404 |
|  | EDA 6943 | EDA 695 | EEX 6846 | EEC 613C | ENG 4103 | ENG 400 |
| (1) | EDE 4943 | EEL 425 | EEX 6863 | EEC 695 | ENG 4103 | ENG 406 |
| 0 | EDE 5905 | EEL 595 | EEX 6906 | EEC 698C | ENG 4103 | ENG 403 |
|  | EDE 6205 | EEL 605 | EEX 6927 | EEC 697C | ENG 4103 | ENG 408 |
| (1) | EDE 6225 | EEL 606 | EGC 5305 | PPS 508 | ENG 4134 | ENG 420 |
| (1) | EDE 6925 | EEL 697 | EGC 5319 | PPS 508L | ENG 4141 | ENG 462C |
| + | EDE 6930 | EEL 696 | EGC 5405 | PPS 506 | ENG 4555 | ENG 461C |
| - | EDE 6948 | EEL 695 | EGC 6001 | PPS 650 | ENG 4574 | ENG 423 |
| $\bigcirc$ | EDF 3521 | HIS 303 | EGC 6203 | PPS 627 | ENG 4906 | ENG 498 |
|  | EDF 3542 | PHI 326 | EGC 6255 | PPS 622C | ENG 5517 | ENG 553 |
|  | EDF 3827 | EDU 305C | EGC 6248 | PPS 629C | ENG 5816 | ENG 557 |
|  | EDF 5216 | EDU 518 | EGC 6605 | PPS 630C | ENG 5907 | ENG 598 |
| (1) | EDF 5287 | EDU 505 | EGC 6616 | PPS 626 | ENG 6909 | ENG 698 |
| 0 | EDF 5430 | EDU 517 | EGC 6707 | PPS 601 | ENL 4137 | ENG 433 |
| c | EDF 5481 | EDO 507 | EGC 6708 | PPS 602 | ENL 4138 | ENG 431 |
| (1) | EDF 5710 | EDU 509 | EGC 6708 | PPS 612 | ENL 4139 | ENG 432 |
| 2 | EDF 5720 | EDU 514 | EGC 6725 | PPS 610 | ENL 4540 | ENG 451C |
| (1) | EDF 5724 | EDU 510 | EGC 6726 | PPS 611 | ENL 4540 | ENG 452C |
| (1) | EDF 5780 | EDU 515 | EGC 6822 | PPS 628 | ENL 4540 | ENG 453C |
| $\square$ | EDF 5905 | EDU 595 | EGC 6890 | PPS 695 | ENL 4540 | ENG 454C |
| $\square$ | EDF 5955 | EDU 508 | EGC 6905 | PPS 698 | ENL 5220 | ENG 518 |
| 0 | EDF 6215 | EDU 606 | EGC 6925 | PPS 697C | ENL 5220 | ENG 511 |
| 0 | EDF 6486 | EDU 605 | EGC 6936 | PPS 696 | ENL 5220 | ENG 515 |
| $\bigcirc$ | EDG 3321 | EDU 311 | EIA 4042 | EIA 403 | ENL 5220 | ENG 514 |
|  | EDG 3321 | EDU 311L | EIA 4360 | EIA 405 | ENL 5220 | ENG 516 |
| ) | EDG 3322 | EDU 312 | EIA 4940 | EVO 425C | ENL 5220 | ENG 520 |
|  | EDG 5325 | EDU 506 | EIA 4941 | EIA 425C | ENL 5220 | ENG 513 |
|  | EDG 6250 | EDA 609 | EIA 5811 | EIA 528 | ENL 5220 | ENG 517 |
|  | EDG 6285 | EDA 615 | EIA 5905 | EIA 595 | ENL 5220 | ENG 512 |
|  | EDG 6925 | EDU 697C | EIA 6931 | EIA 605 | ENL 5220 | ENG 519 |
|  | EDP 3004 | PSY 305 | ELD 4322 | EEC 408 | ENY 3004 | BSC 332C |
|  | EDP 6935 | PSY 601 | ELD 6323 | EEC 616 | ESE 5908 | EDS 595 |
|  | EDS 6050 | EDA 608 | EME 5315 | EDU 516 | ESE 6215 | EDS 625 |
|  | EDS 6115 | EDA 616 | EMR 4360 | EEC 407 | ESE 6425 | EDS 628 |
|  | EEC 4203 | ECE 402 | EMR 6852 | EEC 615 | ESE 6925 | EDS 697 |
|  | EEC 4301 | ECE 401 | EMT 5008 | HSM 523 | ESE 6935 | EDS 696 |
|  | EEC 4611 | ECE 403 | EMT 6936 | HSM 624 | ESE 6947 | EDS 695 |
|  | EEC 5906 | ECE 595 | ENC 3353 | ENG 312 | ESL 3361 | ESL 311 |
|  | EEC 6205 | ECE 606 | ENC 3397 | HSM 301 | ESL 4301 | ESL 310 |
|  | EEC 6926 | ECE 697 | ENC 3453 | ENG 311 | ETC 3210 | CSN 354L |
|  | EEC 6932 | ECE 696 | ENC 4522 | ENG 421 | ETC 3220 | CSN 354 |
|  | EEC 6948 | ECE 695 | ENG 3070 | ENG 315 | ETC 3321 | CSN 300 |
|  | EED 4227 | EEC 409 | ENG 3101 | ENG 369 | ETC 3322 | CSN 305 |

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CSN 357
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CSN 402C
CSN 405C
IAT 405C
CSN 465
CSN 451
CSN 455
CSN 452
CSN 413
CSN 400
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CSN 556
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EVS 530C
EVS 542C
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CSN 345
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EET 317C
COT 300
COT 302
COT 304
EET 428
EET 430
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EET 420
EET 422
EET 440
IAT 418
EET 415
EET 425C
COT 404
EET 468
COT 406
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MET 351
CSN 352L
CSN 352
COE 340C
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ENT 495
IAT 495
CSN 497
ENT 497
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ETI 3417
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ETI 3603
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ETI 3646
ETI 3661
ETI 3670
ETI 3681
ETI 3700
ETI 4421
ETI 4452 ETI 4620 ETI 4632 ETI 4634 ETI 4635 ETI 4650 ETI 4660 ETI 4671 ETI 4681 ETI 4683 ETI 4690 ETI 4691 ETI 4708 ETI 4905 ETM 3312 ETM 3510 ETM 3801 ETM 4205 ETM 4221 ETM 4225 ETM 4235 ETM 4407 ETM 4408 ETM 4511 ETM 4643 ETM 4720 ETM 4750 ETM 4752 ETM 4823 EUH 3100 EUH 3142 EUH 3186
EUH 3203
EUH 3420
EUH 3452
EUH 3460
EUH 3570
EUH 3576
EUH 3601
EUH 3611
EUH 4121
EUH 4123
EUH 4187
EUH 4187
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EUH 4187
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FIU
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IAT 497
ITE 497
COE 440C
ITE 324
MET 300
IAT 306
ITE 312
ITE 371
ITE 330
ITE 331
ITE 401
ITE 300
ITE 320
ITE 350
IAT 419
ITE 476
ITE 480
ITE 471
ITE 428
ITE 429 ITE 440C ITE 400 ITE 485 ITE 474 ITE 422C ITE 410 ITE 490 ITE 450 ITE 495 MET 310 MET 362C MET 353C MET 459C
MET 470C MET 460C MET 461C IAT 417 C IAT 422C MET 462C MET 471C MET 463C MET 464C MET 465C IAT 409C HIS 304 HIS 313 HIS 309 HIS 339 HIS 305 HIS 316 HIS 317 HIS 340 HIS 344 HIS 337 HIS 338 HIS 402 HIS 403 HIS 465 HIS 466 HIS 467 HIS 468 HIS 469

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EUH 4200
EUH 4201
EUH 4205
EUH 4206
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EVR 3011
EVR 3012
EVR 3013
EVR 3931
EVR 3949
EVR 4021
EVR 4022
EVR 4211
EVR 4231
EVR 4311
EVR 4905
EVR 4905
EVR 4949
EVR 5061
EVR 5141
EVR 5236
EVR 5907
EVR 5935
EVR 5936
EVS 3215
EVS 3219
EVS 3264
EVS 3360
EVS 3420
EVS 3428
EVS 3440
EVS 3601
EVS 4164
EVS 4164
EVS 4233
EVS 4234
EVS 4463
EVS 4905
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EVS 5682
EVS 5741
EVS 5905
EVS 5930
EVS 6050
EVS 6051

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HIS 422
HIS 423
HIS 428
HIS 429
HIS 431
HIS 432
HIS 433
HIS 434
EVR 301
EVR 302
EVR 303
EVR 312
COE 311
EVR 401
EVR 402
EVR 421
EVR 431
EVR 441
EVR 491
EVR 492
COE 411
EVR 515
EVR 536
EVR 511
EVR 591
EVR 581
EVR 512
EVS 350C

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EUS 356C
EVS 352C
EVS 310C
EPR 325C
EPR 327C
ETS 300C
EPR 320 C
EAS 401C
EAS 401L
EVS 450 C
EVS 451C
EVS 455C
EVS 495C
EVS $497 C$
EVS 554C
EVS 552C
EUS 550C
EUS 558
EUS 558C
EUS 559C
EUS 559
EVS 556C
EVS 512C
EVS 513C
EVS 510C
EVS 520 C
EVS 524C
EVS 525C
EVS 522C
EVS 518C
ETS 595C
ETS 597C
EUS 649C

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|  | EVS 6052 | EUS 652C | FIN 4502 | FIN 425 | FOW 3520 | MOL 359 |
|  | EVS 6053 | EUS 654C | FIN 4504 | FIN 426 | FOW 3540 | MOL 358 |
|  | EVS 6054 | EUS 656C | FIN 4611 | FIN 455 | FOW 3580 | MOL 355 |
|  | EVS 6269 | EVS 655C | FIN 4713 | FIN 435 | FOW 3582 | MOL 356 |
|  | EVS 6422 | EUS 604C | FIN 4904 | FIN 493 | FOW 3584 | MOL 357 |
|  | EVS 6422 | EUS 604 | FIN 4934 | FIN 497 | FOW 4390 | MOL 406 |
|  | EVS 6424 | EUS 614C | FIN 4949 | COE 426 | FOW 4590 | MOL 405 |
|  | EVS 6424 | EUS 614 | FIN 5223 | FIN 517 | FOW 4790 | MOL 407 |
|  | EVS 6603 | EUS 620C | FIN 5305 | FIN 515 | FOW 4810 | MOL 438 |
|  | EVS 6939 | EVS 690C | FIN 5314 | FIN 507 | FOW 5395 | MOL 506 |
|  | EVS 6970 | EUS 699C | FIN 5326 | FIN 516 | FOW 5545 | MOL 558 |
|  | EVT 3065 | EVO 305 | FIN 5345 | FIN 520 | FOW 5587 | MOL 510 |
|  | EVT 3165 | EVO 306C | FIN 5406 | FIN 505 | FOW 5934 | MOL 515 |
|  | EVT 3815 | EVO 308C | FIN 5473 | FIN 545 | FOW 5938 | MOL 570 |
| 5 | EVT 4280 | EVO 408C | FIN 5515 | FIN 508 | FRE 3000 | MOL 311 |
|  | EVT 4365 | EVO 409C | FIN 5605 | FIN 555 | FRE 3120 | FRE 301 |
| 4 | EVT 4668 | EVO 410 | FIN 5714 | FIN 515 | FRE 3121 | FRE 302 |
|  | EVT 4905 | EVO 595 | FIN 6246 | FIN 615 | FRE 3122 | FRE 303 |
|  | EVT 4941 | EVO 406C | FIN 6315 | FIN 616 | FRE 3200 | FRE 303 |
|  | EVT 4949 | EVO 407 | FIN 6316 | FIN 617 | FRE 3201 | FRE 305 |
| (1) | EVT 4990 | EVO 412C | FIN 6325 | FIN 618 | FRE 3270 | FRE 399 |
| 0 | EVT 5067 | EVO 516 | FIN 6426 | FIN 605 | FRE 3415 | FRE 327 |
|  | EVT 5078 | EVO 509 | FIN 6428 | MBA 635 | FRE 3420 | FRE 325 |
| 3 | EVT 5168 | EVO 507 | FIN 6436 | FIN 640 | FRE 3421 | FRE 326 |
| (1) | EVT 5265 | EVO 517 | FIN 6456 | FIN 646 | FRE 3500 | FRE 360 |
|  | EVT 5389 | EVO 502 | FIN 6516 | FIN 625 | FRE 3700 | FRE 309C |
| - | EVT 5460 | EVO 504 | FIN 6525 | FIN 626 | FRE 3705 | FRE 308C |
| $\bigcirc$ | EVT 5461 | EVO 526 | FIN 6636 | FIN 655 | FRE 3780 | FRE 307 |
| ) | EVT 5669 | EVO 506 | FIN 6716 | FIN 635 | FRE 3820 | FRE 336C |
|  | EVT 5766 | EVO 527 | FIN 6806 | FIN 645 | FRE 3840 | FRE 335C |
|  | EVT 5925 | EVO 597 | FIN 6906 | FIN 693 | FRE 4012 | FRE 488 |
|  | EVT 6264 | EVO 606C | FIN 6915 | FIN 695 | FRE 4013 | FRE 411 |
| 0 | EVT 6760 | EVO 616 | FIN E 36 | FIN 697 | FRE 4470 | FRE 499 |
|  | EVT 6925 | EVO 697C | FLE 4151 | EEL 451 | FRE 4501 | FRE 460 |
| (1) | EVT 6930 | EVO 696 | FLE 4375 | EDS 407 | FRE 4562 | FRE 479C |
| ) | EVT 6946 | EVO 695C | FLE 4823 | FRE 478C | FRE 4791 | FRE 475C |
| (1) | EXP 3304 | PSY 361 | FLE 4870 | EEL 454 | FRE 4800 | FRE 476C |
|  | EXP 3652 | PSY 341 | FLE 4871 | EEL 453 | FRE 4935 | FRE 455 |
| 0 | EXP 4204 | PSY 441 | FLE 4873 | SPA 478C | FRE 5060 | FRE 501 |
| 0 | EXP 4404 | PSY 449 | FOL 3000 | MOL 311 | FRE 5061 | FRE 502 |
|  | EXP 4605 | PSY 442 | FOL 3732 | MOL 337 | FRE 5416 | FRE 527 |
| $\stackrel{0}{0}$ | EXP 4934 | PSY 440 | FOL 3905 | MOL 398 | FRE 5730 | FRE 505 |
| ) | EXP 5005 | PSY 549 | FOL 3930 | MOL 397 | FRE 5565 | FRE 579C |
|  | EXP 5406 | PSY 547 | FOL 3955 | MOL 399 | FRT 3110 | FRE 365C |
|  |  |  | FOL 4013 | MOL 411 | FRT 3800 | FRE 328 |
|  | FAD 3232 | FCD 305C | FOL 4905 | MOL 498 | FRT 3810 | FRE 315 |
|  | FAD 4230 | FCD 405 | FOL 4930 | MOL 497 | FRT 4801 | FRE 428 |
|  | FAD 5255 | FCD 515C | FOL 4935 | MOL 455 | FRT 5118 | FRE 556C |
|  | FAD 5260 | FCD 505 | FOL 4958 | MOL 499 | FRT 5802 | FRT 528 |
|  | FAD 5450 | FCD 595 | FOL 5735 | MOL 537 | FRW 3520 | FRE 359 |
|  | FAD 5900 | FCD 596 | FOS 3004 | DIN 305 | FRW 3580 | FRE 355 |
|  | FIL 3200 | THE 358 | FOS 4021 | DIN 415 | FRW 3582 | FRE 356 |
|  | FIL 3506 | THE 357 | FOS 4041 | DIN 410 | FRW 3584 | FRE 357 |
|  | FIN 3100 | FIN 310 | FOS 4043 | ITE 486C | FRW 3820 | FRE 306 |
|  | FIN 3403 | FIN 301 | FOS 4201 | HRM 416 | FRW 3905 | FRE 398 |
|  | FIN 3949 | COE 326 | FOS 6044 | DIN 610 | FRW 3930 | FRE 397 |
|  | FIN 4303 | FIN 415 | FOT 3110 | MOL 365 | FRW 4152 | FRE 465C |
|  | FIN 4313 | FIN 410 | FOT 3800 | MOL 328 | FRW 4390 | FRE 406 |
|  | FIN 4324 | FIN 416 | FOT 4130 | MOL 465 | FRW 4590 | FRE 405 |
|  | FIN 4344 | FIN 420 | FOT 4801 | MOL 428 | FRW 4790 | FRE 407 |
|  | FIN 4404 | FIN 405 | FOT 5131 | MOL 556 | FRW 4810 | FRE 438 |
|  | FIN 4419 | FIN 406 | FOT 5802 | MOL 528 | FRW 4905 | FRE 498 |

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FRW 4930 FRW 5150 FRW 5395 FRW 5934 FRW 5938
FSS 3215 FSS 3221 FSS 3232 FSS 3234 FSS 3241 FSS 3243 FSS 3252 FSS 3272 FSS 3316 FSS 4105 FSS 4245 FSS 4315 FSS 4333 FSS 4431 FSS 4614 FSS 5361 FSS 6365 FSS 6452 FSS 6834

GEA 3000
GEA 3400 GEA 3554 GEA 3600 GEA 3630 GEA 3710 GEO 3122 GEO 3200 GEO 3510 GEO 4114 GEO 5605 GER 3000 GER 3120 GER 3121 GER 3122 GER 3200 GER 3201 GER 3300 GER 3420 GER 4905 GER 4930 GER 5060 GER 5061 GET 3100 GLY 3157 GLY 3200 GLY 3200 GLY 3200 GLY 3220 GLY 3220 GLY 3816 GLY 3850 GLY 3850 GLY 3850 GLY 4190 GLY 4240 GLY 4300

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FRE 497
FRE 510C FRE 506
FRE 515
FRE 570
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HRM 310
HRM 309
HRM 311
HRM 314
HRM 318
HRM 313
HRM 317
DIN 309L
HRM 415
HRM 418
HRM 410
HRM 411
HRM 446
HRM 435
HRM 536
HRM 680
HRM 606
HRM 675

INR 362
INR 351
INR 352
INR 373
INR 331
EAS 311L
EAS 311
EAS 320C
EAS 430
URB 510C
MOL 311
GER 301
GER 302
GER 303
GER 303
GER 304
GER 305C
GER 325
GER 498C
GER 497C
GER 501C
GER 502C
GER 365C
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EAS 313C
EAS 312L
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EAS 305
EAS 305C
EAS 301L
EAS 495
EAS 440
EAS 414C
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GLY 4300 GLY 4401 GLY 4401 GLY 4450 GLY 4555 GLY 4555 GLY 4650 GLY 4650 GLY 4730 GLY 4730 GLY 4791 GLY 4792 GYL 5620 GLY 5793 GLY 5816
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EAS 414 L
EAS 421 C EAS 421 L
EAS 412
EAS 471
EAS 471L
EAS 461
EAS 461L
EAS 432
EAS 432 L
EAS 481
EAS 496
EAS 561
EAS 501
EAS 520

HCA 4111 HCA 4203 HCA 4710 HCA 4711 HCA 5135 HCA 5504 HCA 5505 HCA 5611 HCA 6101 HCA 6113 HCA 6136 HCA 6201 HCA 6301 HCA 6302 HCA 6316 HCA 6392 HCA 6431 HCA 6508 HCA 6510 HCA 6691 HCA 6701 HCA 6718 HCA 6719 HCA 6732 HCA 6811 HCA 6850 HEB 3000 HEB 3110 HEB 3111 HEB 3112 HEB 3200 HEB 3201 HEE 3302 HEE 4104 HEE 4941 HEE 4944 HEE 5335 HEE 5360 HEE 5361 HEE 5362 HEE 5363 HEE 5364 HEE 5365 HEE 5905 HEE 5927 HEE 6126

HCM 414 HCM 418
HCM 413
HCM 419
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HSM 502
HCM 517
HSM 515
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HSM 682
HCM 624
HSM 688
HCM 670
HCM 671
HSM 683
HSM 697
HCM 631C
HSM 684
HCM 651
HSM 687
HSM 693
HSM 680
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HSM 695
HCM 696
HCM 685
MOL 311
HEB 301C HEB 302C
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HEE 425
HEE 406
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HEE 595C
HEE 596C
HEE 606

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HEE 6943
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HFT 5476

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TTM 304
TTM 306
TTM 307
TTM 305
TTM 312
HRM 398
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HED 695
HRM 326
HRM 330
HRM 316
HRM 339
HRM 341
HRM 301
HRM 361 C
HRM 360
HRM 321
HRM 320
HRM 331
HRM 332


|  | New Statewide Prefix \& Number | Current FIU <br> Prefix \& Number | New Statewide Prefix \& Number | Current FIU Prefix \& Number | New Statewide Prefix \& Number | Current FIU <br>  <br> Number |
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|  | HFT 5495 | HRM 510 | HSC 3401 | HSM 311 | HUN 6811 | DIN 692 |
|  | HFT 5595 | HRM 533 | HSC 3511 | MRE 331 | HUS 4413 | SOC 473C |
|  | HFT 5901 | HRM 500 | HSC 3512 | MRE 332 |  |  |
|  | HFT 5901 | HRM 501 | HSC 3513 | MRE 333 | IDS 4154 | BEP 405C |
|  | HFT 5906 | HRM 503 | HSC 3531 | MRE 301 | IDS 4905 | LIS 490C |
|  | HFT 5906 | HRM 502 | HSC 3531 | MRE 301L | IDS 4905 | LIS 493C |
|  | HFT 5911 | HRM 504 | HSC 3905 | HSM 390 | IDS 4905 | LIS 491C |
|  | HFT 6226 | HRM 670 | HSC 4021 | HSM 481 | IDS 4905 | LIS 492C |
|  | HFT 6246 | HRM 610 | HSC 4023 | HSM 483 | IDS 4905 | LIS 494C |
|  | HFT 6256 | HRM 635 | HSC 4061 | HSM 484 | IDS 4905 | LIS 495C |
|  | HFT 6286 | HRM 640 | HSC 4101 | HSM 400 | IDS 4905 | LIS 496C |
|  | HFT 6296 | HRM 625 | HSC 4111 | HSM 413 | IDS 4905 | LIS 497C |
|  | HFT 6297 | HRM 626C | HSC 4131 | HSM 418 | IDS 4905 | LIS 498C |
|  | HFT 6446 | HRM 645 | HSC 4151 | HSM 495 | IDS 4905 | LIS 499C |
|  | HFT 6.456 | HRM 665 | HSC 4201 | HSM 401 | IDS 4920 | LIS 450C |
| - | HFT 6477 | HRM 620 | HSC 4301 | HSM 403 | IDS 4920 | LIS 451C |
| - | HFT 6486 | HRM 621 | HSC 4321 | HSM 414 | IDS 4920 | LIS 452C |
|  | HFT 6487 | HRM 650 | HSC 4390 | HSM 480 | IDS 4920 | LIS 453C |
|  | HFT 6586 | HRM 615 | HSC 4572 | HSM 493 | IDS 4920 | LIS 454C |
|  | HFT 6596 | HRM 660 | HSC 4572 | NUR 493 | IDS 4920 | LIS 455C |
| (1) | HFT 6697 | HRM 629 | HSC 4930 | HSM 499 | IDS 4920 | LIS 456C |
| ) | HFT 6903 | HRM 600 | HSC 4940 | HSM 490 | IDS 4920 | LIS 457C |
|  | HFT 6907 | HRM 601 | HSC 5120 | HSM 517 | IDS 4920 | LIS 458C |
| , | HFT 6912 | HRM 602 | HUM 3024 | HUM 300 | IDS 4920 | LIS 459C |
| (1) | HFT 6916 | HRM 630 | HUM 3302 | HUM 310 | IND 3020 | CSN 340 |
|  | HFT 6946 | HRM 628 | HUM 3302 | HUM 311 | IND 3200 | CSN 373 |
| \% | HHD 3151 | CSN 329 | HUM 3302 | HUM 312 | IND 3210 | CSN 383 |
| $\bigcirc$ | HHD 4420 | CSN 430 | HUM 3302 | HUM 313 | IND 4220 | CSN 473 |
|  | HIS 3001 | HIS 301 | HUM 3302 | HUM 314 | IND 4221 | CSN 474 |
|  | HIS 3244 | HIS 326 | HUM 3302 | HUM 315 | IND 4224 | CSN 475 |
|  | HIS 3308 | HIS 302 | HUM 3302 | HUM 316 | INP 3002 | PSY 350 |
| (1) | HIS 3473 | HIS 350 | HUM 3302 | HUM 317 | INP 4055 | PSY 459 |
| 0 | HIS 3930 | HIS 397C | HUM 3302 | HUM 318 | INP 4203 | PSY 451 |
| C | HIS 3930 | HIS 398C | HUM 3302 | HUM 319 | INP 5835 | PSY 540 |
| (1) | HIS 4908 | HIS 499 | HUM 3872 | HUM 301-309 | INR 3002 | POS 306 |
| $\pm$ | HIS 4930 | HIS 497C | HUM 3813 | HUM 320-349 | INR 3003 | INR 301 |
| (1) | HIS 4930 | HIS 498C | HUM 3949 | COE 301 | INR 3004 | INR 302C |
| ) | HIS 5289 | HIS 500 | HUM 4542 | HUM 400-419 | INR 3031 | INR 323 |
| $\square$ | HIS 5289 | HIS 501 | HUM 4450 | HUM 420-499 | INR 3043 | INR 345 |
| $\underline{\square}$ | HIS 5289 | HIS 502 | HUM 4906 | HUM 490 | INR 3081 | INR 312 |
| ) | HIS 5289 | HIS 503 | HUM 4906 | HUM 491 | INR 3214 | INR 343 |
| 0 | HIS 5289 | HIS 504 | HUM 4906 | HUM 492 | INR 3226 | INR 353C |
| - | HIS 5289 | HIS 505 | HUM 4906 | HUM 493 | INR 3245 | INR 342C |
|  | HIS 5289 | HIS 506 | HUM 4906 | HUM 494 | INR 3246 | INR 344 |
| 0 | HIS 5289 | HIS 507 | HUM 4906 | HUM 495 | INR 3274 | INR 333 |
|  | HIS 5289 | HIS 508 | HUM 4906 | HUM 496 | INR 3403 | POS 339 |
|  | HIS 5908 | HIS 599C | HUM 4906 | HUM 497 | INR 3502 | POS 348 |
|  | HIS 5910 | HIS 520 | HUM 4906 | HUM 498 | INR 3502 | INR 324 |
|  | HIS 5930 | HIS 597 | HUM 4906 | HUM 499 | INR 3603 | POS 317C |
|  | HIS 5930 | HIS 598 | HUM 4920 | HUM 499 | INR 4024 | INR 453 |
|  | HLP 3013 | EEL 307C | HUM 4949 | COE 401 | INR 4033 | INR 471 |
|  | HME 4120 | HMF 405 | HUN 3122 | DIN 301 | INR 4044 | INR 456 |
|  | HME 4230 | HMF 406 | HUN 4241 | DIN 401 | INR 4054 | INR 445 |
|  | HME 4940 | HMF 495C | HUN 4410 | DIN 405 | INR 4082 | INR 461 |
|  | HME 4942 | HME 495 | HUN 5123 | DIN 501 | INR 4102 | POS 413 |
|  | HME 5225 | HMF 507C | HUN 5245 | DIN 520 | INR 4244 | POS 438C |
|  | HME 5905 | HMF 596 | HUN 5611 | DIN 503 | INR 4247 | INR 444C |
|  | HOE 3949 | COE 351C | HUN 5621 | DIN 505 | INR 4261 | INF 489 |
|  | HOE 4940 | HEE 495C | HUN 5890 | DIN 500 | INR 4283 | INR 401 |
|  | HOE 4949 | COE 451C | HUN 6247 | DIN 690 | INR 4401 | INR 413 |
|  | HSC 3051 | HSM 350 | HUN 6408 | DIN 601 | INR 4407 | POS 469C |
|  | HSC 3300 | HSM 304 | HUN 6521 | DIN 640 | INR 4408 | INR 425 |

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INR 4408 INR 4408 INR 4408 INR 4408 INR 4905 INR 4931 INR 4931 INR 4931 INR 4931 INR 4942 INR 5086 INR 5414 INR 5906 INR 6007 ISC 4041 ISC 4911 ISC 4911 ITA 3000 ITA 3120 ITA 3121 ITA 3122 ITA 3200 ITA 3201 ITA 3301 ITA 3420 ITA 4905 ITA 4930 ITT 3110 JOU 3100 JOU 3109 JOU 3200 JOU 3202 JOU 3209 JOU 3300 JOU 3600 JOU 4104 JOU 5806

LAE 4314 LAE 4464 LAE 4810 LAE 4942 LAE 4943 LAE 5414 LAE 6305 LAE 6339 LAE 6355 LAE 6935 LAH 3410 LAH 3482 LAH 4132 LAH 4133 LAH 4201 LAH 4300 LAH 4474 LAH 4932 LAH 4932 LAH 4932 LEI 3437 LEI 3524 LEI 3542

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INR 426C INR 427C
INR 428C
INR 429C
INR 407
INR 462C INR 463C INR 464C INR 465 C POS 474C INR 572 POS 587 C INR 518 POS 617 CHE 409L EAS 492L EAS 491L MOL 311 ITA 301 MOL 302 ITA 303 ITA 304 ITA 305 ITA 325C ITA 325 ITA 498C ITA 497C ITA 365C

COM 380 COM 321 COM 350 COM 355 COM 351 COM 320 COM 390 COM 480 COM 500

EEL 402 EDS 417 EEL 452C EDS 425 EDS 405 EEL 518 ECE 608 EDS 614 EEL 608 EDS 639 HIS 353 HIS 352 HIS 461 HIS 462 HIS 463 HIS 464 HIS 480 HIS 472 HIS 473 HIS 474 PRM 375 PRM 350 PRM 305

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LEI 3630
LEI 4590
LEI 4940
LE1 5440
LEI 5510
LEI 5595
LEI 5907
LEI 6922
LIN 3010
LIN 3200
LIN 3400
LIN 3610
LIN 3642
LIN 4226
LIN 4333
LIN 4400
LIN 4418
LIN 4620
LIN 4701
LIN 4710
LIN 5625
LIN 5934
LIN 3333
LIN 3510
LIN 3510
LIN 3510
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LIT 4203
LIT 4203
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LIT 4290
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LIT 4290
LIT 4290
LIT 4349
LIT 4401
LIT 4930
LIT 5542
LIT 5542
LIT 5542
LIT 5542
LIT 5542
LIT 5542
LIT 5542
LIT 5542
LIT 5542
LIT 5542
LIT 5934
LIT 6934
MAA 4211
MAA 4212
MAA 4402

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PRM 307
PRM 497
PRM 425
PRM 509
PRM 505
PRM 550
PRM 595
PRM 695
MOL 309
MOL 307
MOL 308
MOL 336
ANT 338
MOL 475
MOL 476
ENG 460
MOL 478
MOL 479
PSY 412
PSY 430
MOL 579
MOL 505
ENG 380
ENG 302
ENG 300
ENG 304 ENG 310 ENG 308 ENG 305 ENG 301
ENG 309
ENG 307
ENG 306
ENG 303
ENG 441 C
ENG 442C
ENG 443C
ENG 444C
ENG 440
ENG 442
ENG 443
ENG 444
ENG 441
ENG 422
ENG 450
ENG 499
ENG 545
ENG 541
ENG 547
ENG 548
ENG 550
ENG 542
ENG 544
ENG 549
ENG 543
ENG 546
ENG 599
ENG 699
MAS 451
MAS 452
MAS 453

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MAC 3132
MAC 3233
MAC 3411
MAC 3412
MAC 3413
MAD 3104
MAD 3305
MAD 3401
MAE 4312
MAE 4333
MAE 4810
MAE 4811
MAE 5555
MAE 5870
MAE 6305
MAE 6336
MAE 6899
MAF 3210
MAF 4510
MAF 4511
MAN 3010
MAN 3503
MAN 3504
MAN 3701
MAN 3949
MAN 4102
MAN 4120
MAN 4130
MAN 4151
MAN 4201
MAN 4301
MAN 4320
MAN 4322
MAN 4330
MAN 4401
MAN 4410
MAN 4521
MAN 4523
MAN 4600
MAN 4610
MAN 4701
MAN 4711
MAN 4720
MAN 4722
MAN 4731
MAN 4741
MAN 4781
MAN 4781
MAN 4802
MAN 4810
MAN 4820
MAN 4905
MAN 4905
MAN 4910
MAN 4930
MAN 4930
MAN 4934
MAN 4949
MAN 5123
MAN 5415
MAN 5830
MAN 5831
MAS 317
MAS 321
MAS 301
MAS 302
MAS 303
MAS 375
MAS 351
MAS 365
EEL 413
EDS 406
MAS 401
MAS 402
EEL 525
MAE 587C
ECE 615
EDS 609
EDS 616
SOC 363
SOC 463
SOC 464 BUA 309
BUA 302
ITE 301 C
BUA 314
COE 330C MAN 486C
MAN 461
BEP 430C
MAN 456
MAN 453
MAN 457
MAN 463
MAN 427
MAN 464
MAN 454
MAN 455
MAN 430
MAN 428
MAN 451
MAN 452
BUA 414
BEP 402C
BUA 408
BUA 496
BEP 401
BEP 403
MAN 470
ITE 470
MAN 458
MAN 407
MAN 422
MAN 493
BEP 493C
BEP 498C
MAN 497
MAN 462
BEP 497C
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MAN 5832 MAN 5930 MAN 6112 MAN 6121 MAN 6124 MAN 6205 MAN 6211 MAN 6213 MAN 6311 MAN 6321 MAN 6331 MAN 6351 MAN 6403 MAN 6405 MAN 6411 MAN 6501 MAN 6529 MAN 6601 MAN 6603 MAN 6604 MAN 6713 MAN 6715 MAN 6721 MAN 6721 MAN 6725 MAN 6819 MAN 6830 MAN 6833 MAN 6834 MAN 6835 MAN 6836 MAN 6895 MAN 6905 MAN 6910 MAN 6930 MAN 6930 MAN 6930 MAN 6974 MAP 3103 MAP 3104 MAP 3302 MAP 4401 MAP 4402 MAP 5117 MAP 6127 MAR 3023 MAR 4054 MAR 4103 MAR 4153 MAR 4154 MAR 4203 MAR 4213 MAR 4243 MAR 4244 MAR 4254 MAR 4203 MAR 4243 MAR 4244 MAR 4254 MAR 4303 MAR 4343 MAR 4344

MAN 552
MAN 558
MAN 661
MAN 660
MAN 641
MBA 617
MAN 662
MAN 663
MAN 642
MAN 644 MAN 645
MAN 643
MAN 651
MAN 650
MAN 652
MBA 637
MAN 639
MAN 653
MAN 671
MAN 672
MBA 615C
MAN 691
MBA 625
MBA 699C
MBA 616C
MAN 601
MBA 626C
MAN 618
MAN 621
MAN 622
MAN 630
MAN 619
MAN 693
MAN 690
MAN 694
MAN 695
MAN 697
MBA 695C
MAS 361
MAS 362
MAS 325
MAS 425
MAS 426 MAS 501
MAS 601
BUA 303
MAR 451
MAR 416 MAR 405 MAR 406 MAR 417 MAR 419 MAR 408 MAR 418 BUA 494 MAR 413 MAR 415 MAR 408 BUA 494 MAR 413 MAR 415 MAR 414

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MAR 4453 MAR 4503 MAR 4613 MAR 4703 MAR 4704 MAR 4713 MAR 4723 MAR 4733 MAR 4753 MAR 4773 MAR 4907 MAR 4933 MAR 5913 MAR 5935 MAR 6246 MAR 6346 MAR 6506 MAR 6606 MAR 6617 MAR 6706 MAR 6707 MAR 6716 MAR 6717 MAR 6915
MAR 6936
MAR 6971
MAS 3103
MAS 4301
MAS 4302
MAS 5215
MAT 4905
MAT 4943
MCB 3013
MCB 5505
MCB 5505L
MET 4301
MET 4701
MET 4701
MGF 3113
MHF 4302
MIS 3310
MIS 3423
MIS 4120
MIS 4410
MKA 4392 MLS 3420 MLS 3430 MLS 3700 MLS 3750 MLS 4110 MLS 4120 MLS 4130 MLS 4140 MLS 4150 MLS 4160 MLS 4190 MLS 4306 MLS 4306 MLS 4307 MLS 4320 MLS 4325 MLS 4327

MAR 423
MAR 410 MAR 411 MAR 433 MAR 434 MAR 404 MAR 441 MAR 431
MAR 490
MAR 429
MAR 493
MAR 497
MAR 593
MAR 597
MAR 608
MAR 615
MAR 610
MAR 613 MAR 611C
MAR 633
MAR 634
MBA 636
MAR 690
MAR 693
MAR 697
MAR 695
MAS 345
MAS 480
MAS 481 MAS 580
MAS 495
MAS 580
BSC 310 L BSC 511 BSC 511L EAS 452C EVR 412 C EAS 410C MAS 309 MAS 405 MIL 302C MIL 301C MIL 401C MIL 402C MAR 494 MDT 309L MDT 375C MDT 307C MDT 306C MDT 471 C MDT 473C MDT 472C MDT 474C MDT 425C MDT 495C MDT 426C MDT 401 MDT 401L MDT 411L MDT 480 MDT 421C MDT 491C

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MLS 4405 MLS 4405 MLS 4406 MLS 4460 MLS 4465 MLS 4467
MLS 4535
MLS 4535
MLS 4536
MLS 4555 MLS 4557
MLS 4625
MLS 4625
MLS 4626
MLS 4630
MLS 4635
MLS 4637
MLS 4700
MLS 4755
MLS 4820
MLS 4821
MLS 5934
MLS 5935
MLS 5936
MMC 4200
MMC 4602
MMC 4945
MRE 3110
MRE 3110
MRE 3205
MRE 3205
MRE 3800
MRE 3810
MRE 4304
MRE 4312
MRE 4312
MRE 4410
MRE 4410
MRE 4830
MRE 4831
MRE 4835
MTB 4371
MTG 3212
MTG 4302
MUC 3201
MUC 4201
MUC 4202
MUE 3140
MUE 3313
MUE 4341
MUE 4940
MUE 5907
MUE 6305
MUE 6316
MUE 6349
MUE 6925
MUE 6938
MUG 4101
MUG 4201
MUG 4301
MUG 5105
MUH 3116

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MDT 403 MDT 403L MDT 413L MDT 483C MDT 423C MDT 493C MDT 402C MDT 402L MDT 412 L MDT 422C MDT 492C MDT 404C MDT 404L MDT 414L MDT 481C MDT 424C MDT 494C MDT 484C MDT 485
MDT 451L
MDT 452L
MDT 551C
MDT 552C
MDT 553C
COM 410
COM 400
COM 490
MRE 321
MRE 321L
MRE 322
MRE 322L
MRE 371
MRE 372
MRE 434
MRE 422
MRE 422L
MRE 421
MRE 421L
MRE 472
MRE 471
MRE 940
MAS 419
MAS 318
MAS 465
MUS 328
MUS 427
MUS 428
MUS 335
EEL 319
EMU 406C
EMU 425
EMU 595
ECE 617
EEL 617
EMU 616C
EMU 697C
EMU 617C
MUS 435
MUS 437
MUS 436
MUS 534
MUS 307
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MUH 3211 MUH 3212 MUH 3372 MUH 5375 MUL 3011 MUL 3012 MUL 4400 MUL 4500 MUL 4661 MUM 4301 MUN 3140 MUN 3210 MUN 3310 MUN 3310 MUN 3460 MUN 3710 MUN 4210 MUN 4310 MUN 4310 MUN 4460 MUN 4460 MUN 4710 MUN 5215 MUN 5315 MUN 5315 MUN 5465 MUN 5465 MUN 5715 MUS 3905 MUS 3910 MUS 4910 MUS 5905 MUS 5910 MUT 3031 MUT 3032 MUT 3416 MUT 3611 MUT 4311 MUT 4561 MUT 5325 MVB 3334 MVB 4345 MVB 5355 MVK 3331 MVK 4341 MVK 4343 MVK 5351 MVP 3331 MVP 4341 MVP 5350 MVS 3116 MVS 3216 MVS 3332 MVS 4343 MVS 4975 MVS 5353 MVV 3331 MVV 4341 MVV 5351 MVW 3333 MVW 4345 MVW 5353


MUS 315 MUS 316 MUS 317 MUS 517 MUS 305 MUS 306 MUS 417 MUS 416 MUS 415 MUS 429 MUP 317 MUP 315 MUP 307 MUP 305 MUP 327 MUP 325 MUP 415 MUP 407 MUP 405 MUP 427 MUP 417 MUP 425 MUP 515 MUP 507 MUP 505 MUP 517 MUP 527 MUP 527 MUS 385 MUS 395 MUS 495 MUS 585 MUS 595 MUS 325 MUS 328 MUS 326 MUS 327 MUS 425 MUS 426 MUS 526 MUP 335 MUP 435 MUP 535 MUP 355 MUP 455 MUP 455 MUP 555 MUP 345 MUP 445 MUP 545 MUP 366 MUP 367 MUP 365 MUP 465 MUS 485 MUP 565 MUP 375 MUP 475 MUP 575 MUP 385 MUP 485 MUP 585
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NUR 4134 NUR 470 NUR 4134 NUR 4335 NUR 4431 NUR 4431 NUR 4625 NUR 4642 NUR 4910 NUR 4910 NUR 4955 NUU 3160 NUU 3210 NUU 3211 NUU 3220 NUU 3221 NUU 3222 NUU 3431 NUU 3440 NUU 4211 NUU 4211 NUU 4230 NUU 423. NUU 4231 NUU 4232 NUU 4254 NUU 4330 NUU 4340 NUU 4340 NUU 4410 NUU 4423 NUU 4630

OCB 3010 OCB 5635 OCB 5702 OCB 6631 OCE 3014 ORH 3220 ORI 3000 OTH 3000 OTH 3011 OTH 3120 OTH 3121 OTH 3123 OTH 3130 OTH 3411 OTH 3421 OTH 3813 OTH 4190 OTH 4210 OTH 4260 OTH 4320 OTH 4321 OTH 4422 OTH 4700 OTH 4750 OTH 4850 OTH 4851 OTH 4852 OTH 4853 OTH 5262 OTH 5329

NUR 470L NUR 410 NUR 460 NUR 460L NUR 475 C NUR 402 NUR 435 NUR 440 NUR 403 NUR 360 NUR 365C NUR 365L NUR 370
NUR 375L NUR 375C NUR 350 NUR 380
NUR 401 C NUR 425L NUR 445 C NUR 455C NUR 455L NUR 465C NUR 425 NUR 406 NUR 450 NUR 450L NUR 404C NUR 420 NUR 430

BSC 308 BSC 560 EVS 557C EVS 615C EAS 331 PRM 309 THE 316 OCT 300 OCT 335 OCT 315
OCT 316 TEY 320 OCT 326C OCT 320 OCT 330 ОСТ 360 OCT 432 OCT 450 OCT 433 C OCT 420 OCT 421 OCT 431 OCT 410 OCT 440 OCT 460 OCT 461
OCT 462 OCT 430 OCT 504 OCT 502

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| OTH 5600 | OCT 503 |
| :--- | :--- |
| OTH 5760 | OCT 501 |
| OTH 5905 | OCT 500 |

PAD 3003 POS 314
PAD 3033 PAD 321
PAD 3034 PAD 312
PAD 3204 PAD 301
PAD 3413 PAD 310
PAD 3430 PAD 320
PAD 3702 PAD 305
PAD 3803 POS 345C
PAD 3834 PAD 325
PAD 4024 PAD 400
PAD 4032 PAD 408
PAD 4040 PAD 410
PAD 4103 PAD 402 PAD 4104 PAD 404 PAD 4110 PAD 401 PAD 4223 PAD 4414 PAD 4415 PAD 4432
PAD 4603 PAD 4804 PAD 4905 PAD 4944 PAD 5041 PAD 5427 PAD 5435 PAD 5443 PAD 5840 PAD 6035 PAD 6042 PAD 6043 PAD 6053 PAD 6106 PAD 6109 PAD 6227 PAD 6417 PAD 6437 PAD 6605
PAD 6701
PAD 6706 PAD 6807 PAD 6816 PAD 6836 PAD 6838 PAD 6907 PAD 6915 PAD 6946 PCB 3023 PCB 3023 PCB 3043 PCB 3233 PCB 3510 PCB 3513 PCB 3513 PCB 3702 PCB 3702
PCB 3703
РСВ 3703

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PCB 3703 | BSC 350L | PHI 3710 | PHR 300C | PHY 3040 | PHY 301 |
|  | PCB 3704 | BSC 351C | PHI 3762 | PHR 310C | PHY 3040 | PHY 301L |
|  | PCB 3704 | BSC 351L | PHI 3800 | PHI 329 | PHY 3041 | PHY 302 |
|  | PCB 3873 | BSC 349 | PHI 4133 | PHI 401 | PHY 3041 | PHY 302L |
|  | PCB 4024 | BSC 403C | PHI 4221 | PHI 430 | PHY 3042 | PHY 303 |
|  | PCB 4254 | BSC 401C | PHI 4222 | PHI 431 | PHY 3042 | PHY 303L |
|  | PCB 4254 | BSC 402C | PHI 4460 | PHI 445 | PHY 3050 | PHY 305 |
|  | PCB 4701 | BSC 451C | PHI 4631 | PHI 420 | PHY 3050 | PHY 305L |
|  | PCB 4724 | BSC 425C | PHI 4632 | PHI 421 C | PHY 3051 | PHY 306 |
|  | PCB 4724 | BSC 425L | PHI 4633 | PHI 422 | PHY 3123 | PHY 340 |
|  | PCB 4725 | BSC 427C | PHI 4680 | PHI 404C | PHY 3124 | PHY 341 |
|  | PCB 4725 | BSC 427L | PHI 4764 | PHR 410C | PHY 3424 | PHY 322 |
|  | PCB 4754 | BSC 423C | PHI 4882 | PHI 440 | PHY 3503 | PHY 321 |
|  | PCB 4754 | BSC 423L | PHI 4910 | PHI 490 | PHY 3722C | PHY 352 |
|  | PCB 5205 | BSC 504C | PHI 4910 | PHI 490C | PHY 4221 | PHY 410 |
|  | PCB 5259 | BSC 542C | PHI 4930 | PHI 487 | PHY 4222 | PHY 421 |
| 4 | PCB 5316 | BSC 560L | PHI 4935 | PHI 495 | PHY 4323 | PHY 415 |
|  | PCB 5615 | BSC 521L | PHI 4936 | PHI 495C | PHY 4324 | PHY 416 |
|  | PCB 5835 | BSC 552C | PHI 5934 | PHR 591 | PHY 4526 | PHY 411 |
|  | PCB 5835 | BSC 552L | PHI 5934 | PHR 591C | PHY 4604 | PHY 420 |
| (1) | PEO 4014 | PHE 407 | PHM 3500 | PHI 327 | PHY 4905 | PHY 491L |
| 0 | PET 3202 | PHE 308 | PHM 4000 | PHR 401 | PHY 4906 | PHY 492L |
|  | PET 3310 | PHE 305 | PHM 4020 | PHI 434 | PHY 4907 | PHY 493L |
|  | PET 3360 | PHE 306 | PHM 4030 | PHR 426C | PHY 4936 | PHY 471 |
| ( | PET 3461 | PHE 307 | PHM 4050 | PHI 435 | PHY 4937 | PHY 472 |
|  | PET 3640 | PHE 309 | PHM 4220 | PHI 427 | PHY 4938 | PHY 473 |
| +0 | PET 4230 | PHE 411 | PHM 4400 | PHI 428 | PHY 5936 | PHY 591 |
| 0 | PET 4430 | PHE 408 | PHP 3840 | PHI 316 | PHY 5937 | PHY 592 |
| ) | PET 4435 | PHE 412 | PHP 4510 | PHI 418 C | PHY 5938 | PHY 593 |
|  | PET 4450 | PHE 405 | PHP 4782 | PHI 416 | POR 3000 | MOL 311 |
|  | PET 4510 | PHE 436 | PHP 4784 | PHI 414 | POR 3120 | POR 301 |
|  | PET 4622 | PHE 416C | PHP 4786 | PHI 415 | POR 3121 | POR 302 |
| 0 | PET 4945 | PHE 425 | PHS 4303 | PHY 451 | POR 3122 | POR 303 |
|  | PET 5125 | PHE 509 | PHS 5125 | PHY 501 | POR 3200 | POR 304 |
| ) | PET 5238 | PHE 506 | PHT 3001 | PHT 301 | POR 3201 | POR 305 |
|  | PET 5256 | PHE 535 | PHT 3121 | PHY 310 | POR 3420 | POR 325 |
| ) | PET 5366 | PHE 585 | PHT 3122 | PHT 311 | POS 3001 | POS 301 |
|  | PET 5426 | PHE 507 | PHT 3123 | PHT 312 | POS 3044 | POS 321 |
| (1) | PET 5906 | PHE 595 | PHT 3133 | PHT 323 | POS 3122 | POS 312C |
| - | PET 5925 | PHE 505 | PHT 3202 | PHT 352 | POS 3153 | POS 323C |
|  | PET 6535 | PHE 698 | PHT 3231 | PHT 354 | POS 3283 | POS 331 |
|  | PET 6932 | PHE 696 | PHT 3232 | PHT 324 | POS 3424 | POS 321 |
|  | PET 6944 | PHE 695 | PHT 3300 | PHT 320 | POS 3453 | POS 341 |
|  | PHH 3042 | PHI 318C | PHT 3310 | PHT 314 | POS 3603 | POS 343 |
| 0 | PHH 3200 | PHI 312 | PHT 3311 | PHT 317 | POS 3604 | POS 344C |
|  | PHH 3300 | PHI 313 | PHT 3400 | PHT 344 | POS 3705 | POS 302C |
|  | PHH 3420 | PHI 314C | PHT 3803 | PHT 333 | POS 4145 | POS 445C |
|  | PHH 3700 | PHI319C | PHT 3812 | PHT 334 | POS 4147 | POS 495C |
|  | PHH 3840 | PHR 311C | PHT 4141 | PHT 425 | POS 4154 | POS 423 |
|  | PHH 3843 | PHR 315C | PHT 4234 | PHT 456 | POS 4233 | POS 420 |
|  | PHH 4500 | PHI 410 | PHT 4235 | PHT 416 | POS 4253 | POS 431 |
|  | PHH 4600 | PHI 411 | PHT 4312 | PHT 415 | POS 4284 | POS 442C |
|  | PHI 3010 | PHI 300 | PHT 4313 | PHT 417 | POS 4413 | POS 411C |
|  | PHI 3100 | PHI 301 | PHT 4351 | PHT 488C | POS 4463 | POS 452C |
|  | PHI 3300 | PHI 302 | PHT 4510 | PHT 447 | POS 4493 | POS 488 |
|  | PHI 3302 | PHI 310 | PHT 4822 | PHT 435 | POS 4496 | POS 462C |
|  | PHI 3400 | PHI 328 | PHT 4823 | PHT 436 | POS 4691 | INR 424 |
|  | PHI 3401 | PHI 325 | PHT 4824 | PHT 437 | POS 4905 | POS 407C |
|  | PHI 3420 | PHI 320C | PHT 4825 | PHT 438 | POS 4933 | POS 461C |
|  | PHI 3500 | PHI 303 | PHT 4905 | PHT 407 | POS 4935 | POS 491C |
|  | PHI 3600 | PHI 305 | PHT 4932 | PHT 426 | POS 4935 | POS 492C |
|  | PHI 3700 | PHI 324 | PHY 3033 | PHY 362 | POS 4944 | POS 472C |

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POS 4944 POS 5606 POS 5909 POS 5934 POS 6146 POS 6934 POT 3013 POT 3054 POT 3064 POT 4055 POT 4113 POT 4123 POT 4204 POT 4302 POT 4930 POT 5115 POT 5934 POT 6007 POW 4905 POW 4930 PPE 3003 PPE 3502 PPE 4105 PPE 4123 PPE 4325 PPE 4514 PPE 4604 PPE 4930 PRT 3401 PSB 3523 PSB 4003 PSB 5034 PSB 5035 PSC 3001 PSC 3351 PSC 3810 PSY 3013 PSY 3043 PSY 3043 PSY 4693 PSY 4900 PSY 4914 PSY 4916 PSY 4930 PSY 4931 PSY 4931 PSY 5206 PSY 5246 PSY 5930 PSY 5939 PSY 6971 PUP 3004 PUP 3206 PUP 4056 PUP 4203 PUP 4314 PUP 4323 PUP 4404 PUP 4520 PUP 5934 PAD 6005 PUP 6006
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POS 471 C POS 553C POS 518C POS 572C POS 618 POS 683C POS 311C POS 322C
POS 333
POS 422C POS 455C POS 408C POS 427C POS 444C POS 466C POS 556C POS 566
POS 607C POR 498C
POR 497C PSY 360 PSY 340 PSY 463 PSY 488
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|  | SOC 3150 | SOC 321 | SOC 4746 | SOC 496 | SOW 4332 | SOW 417 |
|  | SOC 3201 | SOC 361 | SOC 4829 | SOC 404C | SOW 4403 | SOW 401 |
|  | SOC 3281 | SOC 343 | SOC 4833 | SOC 411 | SOW 4512 | SOW 408 |
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|  | SOC 3402 | SOC 381 | SOC 4941 | SOC 499 | SOW 4949 | COE 453 |
|  | SOC 3424 | SOC 342 | SOC 5140 | SOC 572 | SOW 5217 | SOW 596 |
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|  | SOC 3820 | SOC 312 | SOC 5264 | SOC 589 | SOW 5435 | SOW 501 |
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|  | SOC 4003 | SOC 406 | SOC 5909 | SOC 591 | SPA 3000 | EEC 309 |
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|  | SOC 4251 | SOC 421C | SOP 3772 | PSY 363 | SPN 3200 | SPA 304 |
|  | SOC 4265 | SOC 455 | SOP 3783 | PSY 323 | SPN 3201 | SPA 305 |
|  | SOC 4267 | SOC 475 | SOP 3931 | PSY 372 | SPN 3270 | SPA 399 |
|  | SOC 4271 | SOC 446C | SOP 3932 | PSY 311 | SPN 3415 | SPA 327 |
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|  | SOC 4440 | SOC 491 | SOP 4645 | PSY 452 | SPN 4013 | SPA 411 |
|  | SOC 4463 | SOC 466C | SOP 4649 | PSY 453 | SPN 4470 | SPA 499 |
|  | SOC 4464 | SOC 476 | SOP 4705 | PSY 420 | SPN 4501 | SPA 460 |
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|  | SOC 4480 | SOC 474 | SOP 4715 | PSY 483 | SPN 4790 | SPA 475C |
|  | SOC 4490 | SOC 432 | SOP 4735 | PSY 481 | SPN 4800 | SPA 476C |
|  | SOC 4490 | SOC 434 | SOP 4842 | PSY 474C | SPN 4905 | SPA 498C |
|  | SOC 4490 | SOC 431 | SOP 5058 | PSY 570 | SPN 4936 | SPA 455 |
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# COLLEGE OF ARTS AND SCIENCES 


#### Abstract

The College of Arts and Sciences is a Liberal Arts College. As such, it furthers the study of fundamental intellectual disciplines and renders service to the professional schools.

The Administrative units of the College offer departmental programs of study leading to bachelor degrees in biological sciences, economics, English, history, international relations, mathematical sciences (mathematics, statistics, computer science), modern languages (French, German, Italian, Portuguese, Spanish), performing arts (music, theatre), philosophy/religion (philosophy and/or religious studies), physical sciences (physics, chemistry, earth sciences, environmental studies), political science, psychology, sociology/anthropology, and visual arts.

The College also offers collegiate programs of study leading to bachelor degrees in humanities and liberal studies. Students may earn certificates, authorized by the College, in Ethnic Studies, Caribbean/Latin American Studies, Consumer Affairs, and Linguistics Studies.

As part of the conditions for a bachelor degree the College requires that at least ten (10) quarter hours of elective credit stipulated in each academic major program be earned through course work taken outside the department sponsoring the program. Moreover, students are encouraged to consider the possibility of taking a minor besides their major, in order to enhance the liberal quality of their education.


## ADMISSION

A student holding an Associate degree from a community college (or having completed the equivalent course work at a four year school) will be admitted to the program of his or her choice. The college will also serve students who need to complete general education requirements or certain other requirements in order to enroll in specific discipline or professional programs.

## ANTHROPOLOGY MAJOR

Barry Levine, Associate Professor and Chairperson
James Mau, Dean, College of Arts and Sciences and Professor
Joseph Olander, Executive Vice President, F.I.U., and Associate Professor

Randy Kandel, Associate Professor
Anthony Maingot, Associate Professor
Jerald Brown, Associate Professor
William Osborne, Associate Professor
Nicholas G. Sileo, Associate Professor
Judith Hoch-Smith, Assistant Professor

[^1]

NOTE: A student with special interests may consult faculty advisors to plan an individualized program of study.
Field Work Experience - A meaningful understanding of anthropology and sociology can best be developed through the interplay of theory and research. Each student will be encouraged to work outside of the formal classroom under faculty supervision.

## MINOR IN SOCIOLOGY/ANTHROPOLOGY

PRESCRIBED COURSES: 25 credits in the Department of Sociology/Anthropology including the following:

2 courses chosen from among the four core courses required of departmental majors: ANT 3086 Anthropological Theories; SOC 3610 Sociological Theories; SOC 3500 Research Methods; SSI 3303 Ethical Issues in Social Science Research.

## COURSE DESCRIPTIONS

DEFINITION OF PREFIXES<br>ANT - Anthropology; SOC - Sociology; SSI - Social Sciences-Interdisciplinary.

## ANT 2224 TRIBAL ART AND AESTHETICS

This course deals with the social and cultural context and functions of art in preliterate societies as in subSaharan Africa. New Guinea, and North America. Topics include wood carving, bronze casting, singing, dancing, drumming, masquerading, theatrical performance, and all forms of oral literature.

## ANT 3000 THE SCOPE OF ANTHROPOLOGY

An introductory survey of the major areas of anthropological inquiry, including social, cultural, physical and applied anthropology, as well as archaeology and linguistics. An examination of the anthropological perspective.
ANT 3004 MAKERS OF MODERN ANTHROPOLOGY
The craft of anthropology is explored through the work and writings of such well-known anthropologists as Ruth Benedict, L.S.B. Leakey, Claude Levi-Strauss, Oscar Lewis, Margaret Mead and Fobert Redfield. Designed for non-majors; majors may enroll for elective credit only.

## ANT 3086 ANTHROPOLOGICAL THEORIES

This course examines the process of theory building and explanation in the social sciences, and outlines the historical and philosophical foundations of anthropological thought. Theorists and schools of thought reviewed include Darwin and evolution; Boas and historical particularism; Freud and culture and personality, and Malinowski and functionalism.

## ANT 3144 PREHISTORY OF THE AMERICAS

Early man in the Americas is examined through archaeological records.

## ANT 3241 MYTH, RITUAL AND MYSTICISM

A survey of anthropological approaches to the study of myth, ritual, and mysticism, as religious and symbolic systems. The social and psychological functions of myth and ritual in primitive and complex societies will be compared.
ANT 3251 PEASANT SOCIETY
Comparative study of peasant societies with emphasis on the concepts of folk community, traditional cuture, and modernization. Data on peasantry in Latin America and other culture areas will be reviewed.

## ANT 3262 AGRICULTURE AND SOCIETY

An introduction to the role of agriculture in the development of civilization; comparative agricultural production systems; problems and prospects of agricultural development.

## ANT 3263 WORLD FOOD SUPPLY

An examination of world food supply, including distribution patterns and problems. Comparisons between nutritional standards and human and economic development programs among industrialized and Third World nations are made.

The application of classical anthropological methods and concepts to the analysis of contemporary American culture. Investigation of a unique cultural scene will involve the student in field work and the preparation of an ethnographic report.
ANT 3403 CULTURAL ECOLOGY
Systems of interaction between man and his environment; the role of social, cultural and psychological
factors in the maintenance and disruption of ecosystems; interrelations of technological and environmental changes.

## ANT 3422 KINSHIP AND SOCIAL ORGANIZATION

Topics will include the comparative study of systems of kinship, social organization and politics in preliterate societies. Age and sex differences, division of labor, class, caste, slavery and serfdom will also be explored.
ANT 3425 UTOPIAS AND INTENTIONAL COMMUNITIES
A case study examination of historical and contemporary attempts to develop the "ideal" social setting for human interaction. The community study approach in anthropology will serve as the theoretical basis for this course.
ANT 3432 CULTURE AND PERSONALITY
The relationship between culture and personality; problems of individual adjustment to cultural norms; and current issues in psychological anthropology.

## ANT 3435 THE INDIVIDUAL IN ANTHROPOLOGY

Study of the individual in his socio-cultural context; the place of the individual in anthropological theory; and the influence of culture on the individual through the use of biography, autobiography, journals, diaries, novels, and narratives.

## ANT 3442 URBAN ANTHROPOLOGY

Anthropological study of urbanization and urban life styles, with particular emphasis on rural-urban migration and its impact on kinship groups, voluntary associations, and cultural values.

## ANT 3462 MEDICAL ANTHROPOLOGY

A survey of basic concepts; examination of preliterate and non-western conceptions of physical and mental health and illness; emphasis on cultural systems approach to the study of illness and health care. Background in biology, medicine, or nursing helpful; instructor's permission required.

## ANT 3476 MOVEMENTS OF REBELLION AND REVITALIZATION

Crosscultural study of revolutionary, messianistic, and revitalization movements in tribal and peasant societies. Case materials include Negro slave revolts, cargo cults, and peasant wars of the twentieth century (Mexico, China, Vietnam).

## ANT 3500 ORIGIN AND DISPERSION OF MAN AND WOMAN

A study of the biological history of man as interpreted through the theory of evolution, anatomy and the
fossil record, contemporary population genetics, and the concept of race.

## ANT 3512 SOCIAL BIOLOGY

An examination of the biological bases for human adaption and sociocultural interaction.

## ANT 3542 HUMAN BIOLOGY AND CULTURAL BEHAVIOR

Studies of animal social behavior and the relevance of these ethnological studies for the analysis of human development and socio-cultural behavior.

## ANT 3733 THERAPEUTIC COMMUNITIES

Cross-cultural and inter-ethnic analysis of mental health and illness. Analysis of formal and informal community mental health delivery systems, with emphasis on clinical, humanistic, and therapeutic modalities.

## ANT 4007 THE ORGANIZER

A study of men who have inspired mass organizations and brought about major social and cultural transformations. The organizing styles of Christ, Gandhi, Hitler, Mao Tse-tung, and Martin Luther King will be examined. The relationship between culture content and organizational symbols will be analyzed.

## ANT 4031 ENVIRONMENTAL REVITALIZATION

The course will present a cultural ecological framework for the analysis of the relationship between dietary habits, energy consumption, and land resource use; the growth of agribusiness; demise of rural society; and world lood consumption patterns.

## ANT 4211-4360-4361-4328 AREA STUDIES

Ethnological survey of selected indigenous cultures. Areas to be studied include: (1) North America; (2) Africa; (3) Asia or Southeastern Asia; (4) China. Topics will be announced and will vary depending on current stafi.

## ANT 4242 STUDIES IN TRANSPERSONAL PHENOMENA

The data on transpersonal phenomena (such as psychic healing, trance induction, ESP, and expanded consciousness) will be reviewed and related to the cultural settings in which they were collected.

## ANT 4243 WITCHCRAFT

Study of the theories, facts, and fantasies concerning witchcraft in western and non-western societv, from socio-cultural, socio-historical and socio-psychological perspectives.

## ANT 4273 LAW AND CULTURE

A cross-cultural examination of the practical and theoretical relationships between the legal system and other aspects ol culture and society.

## ANT 4306 THE THIRD WORLD

An interdisciplinary, cross-cultural survey of the tactors contributing to the emergence of the Third World Signılicant political, economic, pan-natıonal and pan-ethnic coalitions are analyzed

## ANT 4312 AMERICAN INDIAN ETHNOLOGY

An examination of the sociocultural patterns of selected American Indian groups as they existed in the indigenous state, prior to European contact.

## ANT 4314 THE AMERICAN SOUTH: A REGIONAL SUBCULTURE

A course designed to provide an understanding of the Southern regional subculture. Discussion topics will include an analysis of the sociocultural characteristics attributed to this region.

## ANT 4315 AFRO-AMERICAN ANTHROPOLOGY

interdisciplinary study of Atro-American cultures of the New World. Topics include cultural patterning.
Black English, ethnomusicology, socio-economic adaptations, black culture and ghetto ethnography.

## ANT 4324 MANY MEXICOS

An interdisciplinary examination of the major social, cultural, economic and political factors contributing to the translormation from the Aztec empire to colonial society to modern Mexico.
ANT 4328 MA YA CIVILIZATION
A survey of the culfure and intellectual achievements of the ancient Maya civilization of Mesoamerica. Course includes: history and social-political structure, archeology, argriculture and city planning, mathematics, hieroglyphics, astronomy, and calendars. No prerequisites.
ANT 4329 RESEARCH IN MAYA CIVILIZATION
Concentration is on hieroglyphic research with the inscriptions and Maya codices (Dresden, Madrid and Paris) as resource material. Students will be instructed in research techniques, including calendric counting procedures, correction of scribal errors, reconstruction of almanacs and methodology of decipherment. Supervised group projects will apply techniques to original research and reporting of conclusions. Pre-requisite: ANT 4328.
ANT 4332 LATIN AMERICA
Native cultures of Mexico, Central and South America; the lowland hunters and gatherers and the preColumbian Inca and Aztec Empires; the impact of the Spanish conquest.

## ANT 4340 CULTURES OF THE CARIBBEAN

An ethnological survey of native cultures and of the processes of culture contact and conflict in the Caribbean and Circum-Caribbean region.
ANT 4343 CUBAN CULTURE AND THE REVOLUTION
Cultural history of Indian, African and Spanish populations; the Revolution and traditional Cuban society; the problems and prospects of the Cuban community in the United States.
ANT 4352 AFRICAN PEOPLES AND CULTURES
This course includes a survey of the cultures and civilizations of sub-Saharan Africa. It includes discussions of history, geography, socio-political structures, religion, art, music, and oral literature. No prerequisite
ANT 4405 CULTURE AND CONSCIOUSNESS
This course provides an introduction to the anthropological study of certain phenomena of consciousness. There are deep roots for the study of altered and/or higher states of consciousness in anthropology. Topics to be explored will include: vision questing, possession phenomena, trance dancing, glossalalia, curing, shamanism, and meditation.

## ANT 4406 ANTHROPOLOGY OF WAR AND VIOLENCE

ANT 4433 PSYCHOLOGICAL ANTHROPOLOGY
Cross-cultural studies in cognition, possession states, myth making and world view are examined. The interface of anthropology, psychology and psychiatry is reviewed.
ANT 4451 RACIAL AND CULTURAL MINORITIES
The study of selected ethnic and cultural groups, with particular emphasis on patterns of interethnic and intercultural relationships. Minorify groups studied may include Atro-Americans, American Indians, Chicanos, Cubans, women, senior citizens or prisoners
ANT 4452 THE RURAL POOR: MIGRANTS, SHARECROPPERS AND TENANT FARMERS
The decline of the family farm and the rise of corporate agribusiness; the life styles of migrants, sharecroppers and tenant farmers; the farm labor movement and farmer cooperatives; government policy and the rural poor.

## ANT 4453 CULTURE AND POVERTY

Cultural patterns among the poor; current cultural models utilized in the study of poverty; the impact of cultural models on anti-poverty programs and public policy.
ANT 4454 AMERICAN INDIANS TODAY
An examination of the history of the American Indians since European contact, and their socio-cultural patterns as a contemporary American minority group.

## ANT 4460 HALLUCINOGENS AND CULTURE

Cross-cultural examination of the political, religious, and socio-cultural factors related to the use of hallucinogens. Case materials from tribal and contemporary societies will be analyzed, including the study of soma, the divine mushroom of immortality of the Hindu Rig-Veda; the native American Indian
peyote cult; shamanism and healing in Latin America; the teachings of Don Juan, a Yaqui sorcerer, and the therapeutic uses of LSD. This course does not focus primarily on drug abuse and rehabilitation although these topics are mentioned within the comparative context of the ethnographic data.

## ANT 4469 SPECIAL TOPICS IN MEDICAL ANTHROPOLOGY

Special courses dealing with advanced topics including: (1) folk medicine and ethnoscience; (2) nutritional anthropology; (3) anthropology and nursing; (4) medical anthropology and the elderiy.
ANT 4474 CULTURE SHOCK: THE YEAR 2000

ANT 4705 APPLIED ANTHROPOLOGY
The theory and practice of applied anthropology; cultural factors and planned community change ; implications of case data for public policy. Emphasis will be placed on the processes of economic development and culture change in developing nations.
ANT 4723 EDUCATION AND SOCIALIZATION
A crosscultural examination of educational and socialization processes, their functions in the larger society, and the value systems they transmit.
ANT 4907 DIRECTED INDIVIDUAL STUDY (VAR)
Supervised readings and/or field research and training. May be repeated.
ANT 4908 DIRECTED FIELD RESEARCH
Permission of instructor required.

## ANT 4930 TOPICS IN ANTHROPOLOGY

Special courses dealing with advanced topics in the major anthropological subdisciplines: (1) social and cultural anthropology, (2) applied anthropology, (3) physical anthropology, (4) linguistics, and (5) archaeology. Instruction by staff or visiting specialists. Topics to be announced. Instructor's permission required. May be repeated.

## ANT 4944 PRACTICUM

Permission of the instructor required.

## ANT 5466 CULTURAL FACTORS IN HEALTH CARE DELIVERY

Topics studied include the varieties of subcultural perceptions of and responses to illness; formal and informal healing systems; the indigent patient; and the design of health care delivery services in a multicultural area. Prerequisite: medical anthropology course or permission of the instructor.

## ANT 5468 ADDICTS AND ADDICTIONS

A cross-cultural examination of the historical, sociocultural, and pharmacological factors involved in drug abuse and addiction. Various treatment programs are compared and evaluated.
ANT 5726 ANTHROPOLOGY FOR EDUCATORS
A course designed to provide educators, particularly at the secondary level, with an overview of anthropology as a discipline; its role in a social science curriculum; methods for designing and teaching anthropology courses; and sources of bibliographic and audio-visual aids.

## ANT 5908 DIRECTED INDIVIDUAL STUDY

Supervised readings and/or field research and training. May be repeated.
ANT 5915 DIRECTED FIELD RESEARCH
Permission of instructor required.

## ANT 5937 COMMUNITY ACTION RESEARCH SEMINAR

Seminar will tocus on the application of social science data gathering techniques to the analysis and resolution of community issues, such as urban planning, environmental quality, and corporate consumer accountability. Open to majors only. Prerequisite: SOC 3500, or permission of the instructor.

## SOC 3500 RESEARCH METHODS

An introduction to the scientific method and its application to anthropological and sociological research. Topics include formulation of research problems, research design, field methods and collection of data, hypothesis testing, and interpretation of results.

## SOC 3610 SOCIOLOGICAL THEORIES

Examines the emergence of sociology as the study of social relations. Compares and contrasts the work of selected theorists with respect to their methodologies. Treats the emergence and consequences of modern society, political sociology, conception of social class, and analysis of the role of religion in society. The student is expected to gain in-depth knowledge of opposing theories, as well as an appreciation of the contingent nature of sociological theories.

## SSI 3010 INTRODUCTION TO SOCIAL SCIENCE

An introduction to anthropology, psychology, and sociology; a survey of the similarities and differences in history and philosophy and goals and techniques of research in these disciplines; a review of modern interdisciplinary efforts.

## SSI 3303 ETHICAL ISSUES IN SOCIAL SCIENCE RESEARCH

An introduction to the problems and possibilities of ethical premises in the perspectives and work ol socia scientists. Examination of historical interrelationships between moral philosophies and developing scientilic methodologies. Analyses ol contemporary social ethicists attempts to assume moral postures while examining social relations. Case studies involving issues such as nation building in areas of accelerated change, including Alrica and Asia.

## BIOLOGICAL SCIENCES MAJOR

Leon A. Cuervo, Associate Professor and Chairperson
Abraham M. Stein, Professor
Chun-fan Chen, Associate Protessor
Walter M. Goldberg, Associate Professor
Gerald L. Murison, Associate Professor
James A. McArthur, Assistant Professor

Case K. Okubo, Assistant Professor George Taylor, Assistant Professor Martin L. Tracey, Assistant Professor Carlo Ambrosino, Courtesy Professor
Patsy A. McLaughlin, Courtesy Professor
Josel Szepsenwol, Courtesy Professor

Campus Location: Tamiami Campus only DEGREE: Bachelor of Science
*Students interested in teacher certification see note on page 5.
LOWER DIVISION PREPARATION:
Required Courses: 8 semester hours in each of the following areas: general biology, general chemistry, and general physics; 9 semester hours in college algebra, trigonometry, and analytical geometry.
Recommended courses: foreign language, calculus, organic chemistry.
Remark: 6 semester hours above the introductory level in biology may be counted toward the upper division major.
UPPER DIVISION PROGRAM:


## SPECIAL PROGRAMS

Bachelor of Science (with Honors)
Requirements:
Admission to the Honors Program:
a. Permission of the Department. Application should be made after the third quarter at FIU and three quarters before graduation.
b. A minimal grade point average of 3.6 based upon total college records or FIU records alone, whichever is higher.
Graduation with Honors:
a. A minimal grade point average of 3.7 based upon FIU records.
b. Completion of Honors Curriculum.

1. General requirements for the Bachelor of Science degree in Biology must be met.
2. The final year of the study program and the title and description of the thesis must be recommended by the student's sponsor (advisor) and approved by the Curriculum Committee.
3. The Undergraduate Honors Thesis must be approved by the student's sponsor and presented in a seminar.

## Pre-Professional Curricula

Programs of study satisfying requirements for admission to colleges of medicine, dentistry and veterinary medicine arranged in consultation with faculty advisor. MAC 3411, CHM 3400, and ZOO 3603 are recommended as fulfilling requirements of many professional schools.
Minor in Human Biology
Students may elect a minor in Human Biology by selecting four courses from the following list:
BSC 3023 Human Biology
APB 3253 Biological Basis of Human Sexuality
MCB 3013 General Microbiology
PCB 3513 Genetics
PCB 3873 Biological Foundations of Behavior
ZOO 3731 Human Anatomy
ZOO 3834 Neuroscience
PCB 3701 Foundations of Human Physiology
PCB 4701 or PCB 3703 and PCB 3704 are options for students
who desire a more sophisticated course in Human Physiology.
There are noprerequisites for BSC 3023, APB 3253,
PCB 3701, and ZOO 3731.
Master of Science in Biological Sciences
Program in preparation.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

APB-Applied Biology; BCH—Biochemistry; t JT-Botany; BSC-Introductory Biology; ENY-Entomology; MCB—Microbiology; OCB—Ocear Jgraphy (Biological); PCB—Process Cell Biology; ZOO-Zoology.

## APB 3253 BIOLOGICAL BASIS OF HUMAN SEXUALITY

The physiological development of the human organism as a sexual being will be treated, with a review of the psycho-social and psycho-sexual bases of human personality. Patterns of adult sexual behavior will be explored, with emphasis on achiving healthy human sexual attitudes.

## APB 5933 APPLICATIONS OF COMPUTERS IN BIOLOGY

Introduction to computer techniques of great relevance to modern biology, and their application to the study of a representative group of biological problems. Prerequisite: MAS 311 or permission of instructor.
BCH 3033 BIOCHEMISTRY
introduction to the chemistry of proteins, carbohydrates, lipids and their constituents. Principles of enzymology and metabolism. Prerequisites: CHE 220, 221 (MDCC) or CHM 3210, CHM 3211.
BCH 3033L BIOCHEMISTRY LABORATORY
Laboratory to accompany BCH 3033.

## BCH 5315 BIOCHEMISTRY I

Chemical reactions and macromolecular properties of proteins, nucleic acids and polysaccarides.
Genetic and evolutionary aspects of protein structure.
BCH 5316 BIOCHEMISTRY II
Comparative biochemistry: metabolism and regulation of metabolism in microorganisms, plants and animals; mechanisms of enzyme reactions
BCH 6505 ENZYME CHEMISTRY
Physical and chemical properties of enzymes. Review of modern analytical technique in measurement of enzymatic reactions. Discussion of selected enzyme systems.

## BOT 3353 MORPHOLOGY OF VASCULAR PLAN'TS

A survey of groups ol vascular plants emphasizing comparative life histories, vegetative and productive structures, and evolutionary relationships.

## BOT 3353L PLANT MORPHOLOGY LABORATORY

Laboratory to accompany BOT 3353.

## BOT 3503 INTRODUCTION TO PLANT PHYSIOLOGY

Fundamentals of plant growth, considering such topics as growth reactions to environmental stimuli, endogenous growth hormones, and practical modification of plant life cycles.

## BOT 3663 TOPICS IN TROPICAL BOTANY

Survey of representatives of major plant families of the tropics. Examination of selected adaptive characteristics of plants in the tropical ecosystems. Introduction to spices and economically significant tropical plants.

Examination of theoretical and practical problems of plant growth and production. Prerequisite: A course
in plant sciences or advanced biology (or instructor's permission).

## BOT 3935 BIOLOGY OF THE ORCHIDS

Examination of classification systems of the major orchid groups. Study of the role of floral morphology, environmental adaptation, and pollinator co-evolution in speciation. Summary of accepted cultural techniques.
BOT 3935L BIOLOGY OF THE ORCHIDS LABORATORY
BOT 5575 PHOTOBIOLOGY
Study of basic photochemical mechanisms as they occur in molecular biological processes such as plant growth, animal vision and radiation damage.
BOT 5575L PHOTOBIOLOGY LABORATORY
Laboratory to accompany BOT 5575.
BOT 5665 TOPICS IN TROPICAL PLANT SCIENCE
Survey of living materials of at least 50 major tropical plant families. Developmental studies using tropical plant materials are reviewed from both physiological and morphological viewpoints. In addition to lectures in economic botany, field studies of tropical fruit and spice trees are carried out. At least four major tropical ecosystems are analyzed and examined in the field.

## BOT 5665L TOPICS IN TROPICAL PLANT SCIENCE LABORATORY

Laboratory to accompany BOT 5665.
BOT 6536 PLANT PHYSIOLOGY AND BIOCHEMISTRY
Advanced topics emphasizing transport, plant hormones, tropisms, and photosynthesis. Lecture, conference, and laboratory.
BSC 3023 HUMAN BIOLOGY
Human structure and function with emphasis on aspects that relate to human development, genetics, and neurobiology. The relationship of these aspects to handicapping conditions, with respect to mental retardation and behavioral disorders, will be discussed
BSC 3033 ISSUES IN BIOLOGY
Impact on society of recent developments in biological research. The course provides a general background for the intelligent discussion of problems related to states of disease, senescence and death, control of the growth of the population, genetic engineering, and control of behavior.
BSC 3913 PROJECT LABORATORY
(3-8)
Independent laboratory study in a project or projects of the student's choice. Registration by consultation with instructor. May be repeated for additional credit.
BSC 3933 TOPICS IN BIOLOGY
An intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum.
BSC 3934 TOPICS IN BIOLOGY
An intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum.
BSC 4914 PROJECT LABORATORY
Independent laboratory study in a project or projects of the student's choice. Registration by consultation with instructor. May be repeated for additional credit.

## BSC 4931 SENIOR SEMINAR

An exploration of various research works in biological sciences.

## BSC 5931 GRADUATE SEMINAR

Oral presentation of an assigned literature survey by senior and graduate students. Required of candidates in the proposed Honors Program. Students may register for letter grade by oral presentation; or credit/no credit option by participation and submission of written report.

## BSC 6916 PROJECT LABORATORY

## As BSC 3913.

ENY 3004 GENERAL ENTOMOLOGY
Taxonomy, development, morphology and distribution of insects. Ecology and economic problems. Lecture, conference, and laboratory.
MCB 3013 GENERAL MICROBIOLOGY
Introduction to the principles and techniques of microbiology; genetics, taxonomy, biochemistry and ecology of microorganisms.
MCB 3013L GENERAL MICROBIOLOGY LABORATORY
Introduction to the principles and techniques of microbiology, genetics, taxonomy, biochemistry, and ecology of microorganisms.
MCB 5505 ADVANCED VIROLOGY
Principles and methods of study of bacterial, plant, and animal viruses. Molecular aspects of viral development, virus pathogens, and carcinogens.
MCB 5505L ADVANCED VIROLOGY LABORATORYand abundance; biological interactions; species diversity; evolution of populations and communities; theimpact of man. Lecture and field trips. Prerequisites: One year of biology; basic chemistry.

PCB 3183 MICROTECHNIQUEinheritance of quantitatively varying traits, and discussion of IQ inheritance.

PCB 3513 GENETICS tion.
PCB 3702L INTERMEDIATE HUMAN PHYSIOLOGY LAB systems, with emphasis on regulatory mechanisms and abnormal physiology.
PCB 3703L HUMAN PHYSIOLOGY LABORATORYI
PCB 3704 HUMAN PHYSIOLOGYIIof PCB 3703.

PCB 3704L HUMAN PHYSIOLOGY LABORATORYIIment and specializalion in evolution. Prerequisites: General Biology, organic chemistry, invertebratezoology.
PCB 4754L INVERTEBRATE PHYSIOLOGY LABORATORY ..... (2)
Laboratory study to tollow or accompany PCB 4754.
PCB 5205 CELL PHYSIOLOGY AND BIOPHYSICS(5)
Fundamental biophysical properties of membranes; transport of water and solutes across biologicalmembranes; passive and active electrical phenomena in membrane systems. Biochemistry andbiophysics of contractive mechanisms. Transler of information from cell to cell. Bioluminescence. Effectsof radiatıon on macromolecules. Prerequisites: BCH 3033, PCB 3023, CHM 3400 or CHEM 3410 andCHM 3411
PCB 5259 TOPICS IN DEVELOPMENTAL BIOLOGY(5)
Molecular and cellular mechanisms in the development of plants and animals.PCB 5615 MOLECULAR AND ORGANISMAL EVOLUTION(5)The evolutionary relationships among nucleotides and proteins, as well as the processes which yieldthese relationships, are examined. The possible molecular events leading to speciation will then be con-sidered.
PCB 5835 NEUROPHYSIOLOGY(5)Comparative neurophysiology; physico-chemical mechanisms of resting and action polentials; synpatictransmission; neural coding and integration; sensory-motor function and neurophysiological basis ofbehavior.
PCB 5835L NEUROPHYSIOLOGY LABORATORY(2)
Laboratory course demonslrating principles of PCB 5835.
ZOO 3203 THE INVERTEBRATES(5)
Taxonomy, anatomy, development, physiology, and ecology of major invertebrate phyla, excluding ..... in-secls. Emphasis on marine invertebrates.
ZOO 3203L THE INVERTEBRATES LABORATORY ..... (2)
Laboratory to accompany ZOO 3023.
ZOO 3423 AMPHIBIANS AND REPTILES(5)
Comparative studies in distribution, development, anatomy, and physiology of amphibians and reptiles.Lecture, conference, field trips, and laboratory.
2003433 BIRDS AND MAMMALS(5)
Taxonomy,(5)
ZOO 3513 ETHOLOGY
The course is designed ..... cal and evolutionary consequences of various behaviors.
ZOO 3553 TOPICS IN MARINE BIOLOGY(5)
Selected problems in the biology of marine organisms. Lecture and field trips.
ZOO 3603 EMBRYOLOGY(5)
Animal morphogenesis.
ZOO 3603L EMBRYOLOGY LABORATORY ..... (2)
ZOO 3731 HUMAN ANATOMY ..... (5)
Survey of organ systems of the human body.
ZOO 3731L HUMAN ANATOMY DEMONSTRATION(1)
Demonstrations of the prosected human cadaver.
$Z 003733$ HUMAN GROSS ANATOMY I(4-5)
Structure and function of various tissues, organs, and organ systems of the human body.
$2003733 L$ HUMAN GROSS ANATOMY LABORATORY(2)
Dissection of human cadaver material, to reveal the relationships of the various organ systems of thebody.
ZOO 3733L HUMAN GROSS ANATOMY DEMONSTRATIONS(1)
Demonstrations of the prosected human cadaver.
ZOO 3734 HUMAN GROSS ANATOMY II(4-5)
Continuation of ZOO 3733. Prerequisite Zoo 3733
ZOO 3734L HUMAN GROSS ANATOMY LABORATORY II(2)
Continuation of ZOO 3733L. Prerequisites: ZOO 3733 and 3733L.
ZOO 3734L HUMAN GROSS ANATOMY DEMONSTRATIONS(1)
Continuation of ZOO 3733L. Prerequisites: ZOO 3733 and 3733L.
ZOO 3753 HISTOLOGY(5)
Microscopic anatomy of cells, tissues and organs.
ZOO 3753L HISTOLOGY LABORATORY(2)
ZOO 3834 NEUROSCIENCE ..... (4-6)3733 and 3734.

# ECONOMICS MAJOR 

D. Babatunde Thomas, Associate Professor and Chairperson<br>Mira Wilkins, Professor<br>Raul Moncarz, Associate Professor<br>Thomas J. Casey, Jr., Associate Professor<br>Peter J. Montiel, Assistant Professor

Irma G. Tirado de Alonso, Visiting Associate Professor
Gordon L. Brady, Visiting Assistant Professor
Kathleen Brain, Visiting Instructor

The major in economics provides the student with an understanding of economic problems and institutions, and the analytical tools to apply this knowledge to contemporary problems. The program is designed for the student desiring a career in industry, government, international agencies or teaching; and for those planning professional or graduate study in economics, business, law, public administration, urban studies, or international relations.
Location: Tamiami Campus only
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Required Courses: None
Recommended Courses: six semester hours in principles of economics; three semester hours in social science; six to nine semester hours in humanities; six semester hours in college algebra and trigonometry; three semester hours in statistics.
Remark: The entering student who has not taken Principles of Economics must enroll in ECO 3003 during his or her first quarter at the University.
UPPER DIVISION PROGRAM:

|  |  | Quarter | Hours |
| :---: | :---: | :---: | :---: |
| Major Required Courses: |  |  | 45-60 |
| ECO 3101 | Theory of Price | 5 |  |
| ECO 3203 | Aggregate Economic Analysis | 5 |  |
| MAC 3233 | Calculus for Management and Social Science | 5 |  |
|  | Additional Economic Courses* | 35-45 |  |
| *ECO 3003, ECO 3040 or ECO 3432 cannot be included in this grouping. |  |  |  |
| Electives: |  |  | 30-40 |

Remarks: A student may choose a program in general economics or concentrate in one of the following areas: urban and environmental economics, labor and manpower studies, international economics and development, monetary and fiscal policy. The student should select courses in consultation with an advisor. The student planning graduate study in economics should complete 10 quarter hours of the specified method courses.

| Minor Required Courses: | Quarter Hours |
| :--- | ---: |
| ECO 3101 Theory of Price | 20 |
| or |  |

-ECO 3003, ECO 3040, or ECO 3432 cannot be included in this grouping.

Remark: Introductory courses in calculus and statistics are strongly recommended for the student minoring in economics.

## COURSE DESCRIPTIONS

## definition of prefixes

ECO-Economics; ECP-Economic Problems \& Policy; ECS-Economic Systems \& Development; SOC-Sociology
ECO 3003 ECONOMICS, MAN AND SOCIETY
(5) (F,W,S,SS)

Relationship of economics to individual and group action. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups. Public issue interpretation in the light of economic theory.

## ECO 3043 CONSUMER ECONOMICS

Consumer behavior: advertising and other influences affecting demand. Patterns of consumer expenditure; effects of public policy on family incomes and comsumption patterns. The consumer protection movement.

## ECO 3101 THEORY OF PRICE

(5) (W,SS)

Operation of individual markets; market structure; theory of the firm; theory of production; demand theory; general equilibrium and welfare economics. Recommended preparation: ECO 3003 and calculus.

## ECO 3203 AGGREGATE ECONOMIC ANALYSIS

(5) (F,S)

Analyisis of the measurement, determination, and control of aggregate economic activity; the monetary system in relation to income and employment; short-term income fluctuations; long-term growth. Recommended preparation: ECO 3033.
ECO 3223 MONEY AND BANKING
Elements of monetary theory; relationships between money, prices, production and employment; factors determining money supply; history and principles of banking, with special references to the United States.
ECO 3303 DEVELOPMENT OF ECONOMIC THOUGHT
(5) (W,S)

Evolution of economic theory and doctrine. Contributions to economic thought from ancient times to J. M. Keynes. Emphasis on institutional forces shaping the continuum of economic thinking.
ECO 3432 APPLIED MACROECONOMICS
(5) (F,S,W,SS) Aggregate economic performance and business conditions analysis. The nature and causes of business fluctuations. Economic expansions and stagflation. Public policies for economic stability; fiscal policy, monetary policy and income policy. Sectoral analysis and macroeconomic forecasting. Recommended preparation: ECO 3003.
ECO 4134 CAPITAL THEORY
The role of capital in economic analysis. Capital and growth theory - turnpike theorems, applied capital theory and business optimality, capital and distribution theory. Prerequisites: ECO 3101 or ECO 3203 and ECO 4401.
ECO 4224 ISSUES IN MONEY AND BANKING
Formulation and execution of monetary policy. Analysis of monetary policy as it has been carried out in recent years, and as it should be conducted.
ECO 4225 MONEY AND NATIONAL INCOME DETERMINATION
(5) (W)

The basic model of income determination is built, emphasizing the roles of real and monetary sectors of the economy. Results of empirical work are surveyed.
ECO 4307 RADICAL POLITICAL ECONOMY
The relationship between Marxist and orthodox economists. Attention given to the New Left and other current criticisms of capitalist economies. Multinational corporate policy, concentration of economic power, income distribution, and Third World development.
ECO 4401 INTRODUCTION TO MATHEMATICAL ECONOMICS
(5) (W)

Mathematical formulation of economic theory. Mathematical treatment of maximizing and optimizing behavior: applications to consumer and business firm theory, value, economic strategies, growth and stability. Emphasis on understanding of analytical techniques. Recommended preparation: ECO 3101 or ECO 3203.
ECO 4422 INTRODUCTION TO ECONOMETRICS
(5) (S)

Introduction to measurement in economics; numerical evaluation of mathematical models by statistical methods: survey of classical models; discussion of the scope and method of econometric analysis. Recommended preparation: ECO 3101 or ECO 3203 and ECO 4401 and statistics.

The growth of the American economy from colonial times to the present. Special emphasis on market forces, institutional arrangements, and policies contributing to this process.

## ECO 4623 AMERICAN BUSINESS HISTORY

The growth of American business from 1880 to present; integration, diversification, and toreign expansıon. Business strategies and managerial structures.
ECO 4632 EUROPEAN ECONOMIC HISTORY
The development of Mediterranean and Western European economies, from the earliest times to the 20th Century. Attention is centered on capital accumulation, technology, trade, industrialization, monetary factors, and the role of government in economic organization.

## ECO 4701 WORLD ECONOMY

A broad overview of the international economy in historical perspective. Topics: economic demography, trade flows, capital movements, diffusion of technology, the emergence of transnational institutions. The student oblains a conception of how economic interdependence has developed.

## ECO 4703 INTERNATIONAL ECONOMICS

Principles of international trade and balance of payments; significance of geographic, economic, social, and political influences; current problems in international trade and payments; tariffs and commercial policy; role of international organizations. Recommended preparation: ECO 3101.
ECO 4713 INTERNATIONAL MONETARY RELATIONS
International money and capital markets; international financial institutions. Interpretation of balance of payments statements. Adjustments to disequilibria, through changes in prices, exchange rates, and national income. Recommended preparation: ECO 3003.

## ECO 4733 MULTINATIONAL CORPORATION

Growth and development of multinational enterprise. Theories of direct foreign investment. Impact on the United States and other developed and less developed nations. Policy implications relating to employment, economic growth, balance of payments, taxation, and national defense. National sovereignty and the multinational corporation.

## ECO 4902 UNDERGRADUATE TUTORIAL

(VAR)
Supervised readings, individual tutorial, and preparation of reports. Requires consent of faculty supervisor and Department Chairperson.
ECO 5115 ADVANCED SEMINAR IN ECONOMIC THEORY
(5) (F,W,S,SS)

Variable-topic study group in theoretical problems. Open to seniors and graduate students.

## ECO 5216 MONETARY THEORY AND POLICY

Relationship of money supply and interest rate to economic stabilization. Consideration of federal reserve system, money market, and factors determining money supply and demand. Neo-Keynesian, Chicago, and radical policy views.

## ECO 5423 ECONOMETRIC METHODS

Application of statistical methods to the estimation of simultaneous equation systems. Special topics including dynamic models, errors in variables, random coefficient regression. Prerequisites: MAC 3233 and STA 3161. Recommended preparation: ECO 4422.

## ECO 5906 ADVANCED INDIVIDUAL STUDY

(VAR)
Supervised readings, individual tutorial, and preparation of report. Requires consent of faculty supervisor and Department Chairperson. Open to seniors and graduate students.
ECO 5938 ADVANCED SEMINAR IN APPLIED ECONOMICS
(5) (F,W,S,SS)

Variable-topic study group in application of economic analysis to specific problems. Open to seniors and graduate students.

ECO 6115 GRADUATE SEMINAR IN ECONOMIC THEORY
(5) (F,W,S,SS)

Variable-topic graduate study group in theoretical problems. Open only to students with graduate standing.
ECO 6236 MONEY AND MONETARY POLICY
(5) (W)

Monetary theory and its application. Consideration of central banking in the U.S. and its relation to the international economy, money markets, and financial intermediaries. Survey of current policy views.

## ECO 6938 INDIVIDUAL GRADUATE STUDY

(5-10) (F,W,S,SS)
Supervised readings, tutorial and preparation of report. Open only to graduate students. Requires consent of supervisor and approval of Department Chairperson.

ECO 6938 GRADUATE SEMINAR IN APPLIED ECONOMICS
(5) (F,W,S,SS)

Variable-topic study group in application of economic analysis to specific problems. Open to students with graduate standing

## ECP 3123 ECONOMICS OF POVERTY

Poverty in the United States: its measurement and history. Theory of personal income distribution. Present and proposed policies to alleviate poverty.

## ECP 3144 ECONOMICS OF RACE AND SEX DISCRIMINATION

(5) (S)

Economic and non-economic implications of discrimination on the basis of race and sex. Discrimination in the labor and commodity markets. Problems of educational training, unemployment, and personal income distribution.

## ECP 3613 INTRODUCTION TO URBAN ECONOMICS

Study of the urban environment, its characteristics and trends. Location behavior of firms and households. Urban financial problems, transportation, and housing
ECP 3623 REGIONAL ECONOMICS
The spatial order of the economy. Systems of cittes, industrial location patterns, regional land use, interregional income and trade, regional economic expansion, population and migration.
ECP 4003 PROSPERITY, DEPRESSION AND INFLATION
Historical analysis of the Great Depression, business cycles, inflation, and prosperity. Emphasis on the theories o! economic cycles and inflation.
ECP 4004 SEMINAR ON CURRENT ECONOMIC TOPICS
(5) $(W, S)$

Faculty and student discussion of contemporary economic and social issues.

## ECP 4013 ECONOMICS AND DIPLOMACY

Description and analysis of interactions between economic and foreign policy. Free trade vs. protectionism; balance of payments problems; raw material needs and their influence on foreign policy; the "open door" policy; antitrust, taxation, and technology; East-West trade. The approach will be historical.

## ECP 4203 LABOR ECONOMICS

(5) (S)

Economic problems and issues of trade union organization and wage theory; job security, hours, working conditions, labor legislation, unemployment, and discrimination. Recommended preparation: ECO 3101.

## ECP 4222 MANPOWER PROBLEMS AND PROGRAMS

(5) (W)

Problems ol human resource development. Examination of programs for training and upgrading of workers; barriers to skill development and job entry; formulation of public policies on human resources.
ECP 4314 LAND AND RESOURCE ECONOMICS
Availability, use, and control of land and other natural resources. Resource conservation, investment, and taxation. Environmental implications. Resource markets and pricing.

## ECP 4403 ECONOMIC POLICY FOR INDUSTRY

Governmental activities affecting business. Government regulation of business - its historical, legal, and economic perspectives, including recent developments in the United States and abroad. Government assistance to business; proposed policies. Recommended preparation: ECO 3101.
ECP 4433 ECONOMICS OF TRANSPORTATION
Economic analysis applied to specific problems of transport. Effects of location and transportation cost on firm behavior; public regulation and policy; capacity, rate structure, service areas; problems of urban mass transportation. Recommended preparation: ECO 3101.
ECP 4515 ECONOMICS OF EDUCATION
The concept of human capital and related topics. Comparison of education, occupation and output. Welfare economics and the finance of education. Productivity and efficiency of education.

## ECP 4534 MEDICAL AND HEALTH ECONOMICS

Economic analysis of medical and health services. Physician and dentist pricing; hospital supply; markets in health-related professions; drug and equipment markets; medical and health insurance; national priorities and policy for health service delivery. Recommended preparation: ECO 3101.

## ECP 5605 URBAN AND REGIONAL ECONOMICS

Application of economic analysis to urban growth and the urban-regional environment. Consideration of public services, transportation, ghetto problems, and urban organization. Analysis of environmental protection problems and policies. Recommended preparation: ECO 3101 or ECO 3203 and ECP 3303.

## ECP 6704 MANAGERIAL ECONOMICS I

(5) (F,W,S,SS)

Basic microeconomic concepts as they apply to decision making within the organization; supply and demand; market structure and market behavior in specific industries; basic aggregate economic models and forecasting.
ECP 6705 MANAGERIAL ECONOMICS II
(5) (W)

Extension of topics covered in ECP 6704. Includes capital budgeting, linear programming, pricing, decision making under uncertainty, recent developments in theory of the firm. Prerequisite: ECP 6704.

## ECS 3003 COMPARATIVE ECONOMIC SYSTEMS

(5) (F,S)

Analysis of alternative economic systems of industralized and emerging nations. Emphasis on the comparative study of the capitalist, socialist, and communist economic systems of the modern world.
ECS 3402 THE POLITICAL ECONOMY OF SOUTH AMERICA
An introduction to the political economy of the Latin American nations. Designed as a basis course to give the student an overview of the political economy of the nations with which we share this hemisphere.
ECS 3440 ECONOMICS OF CENTRAL AMERICA
Survey of recent economic history of Central American countries, dealing with the institutional background and the structure of current economic activities. Special attention devoted to current problems of economic growth and social transformation.

## ECS 4013 INTRODUCTION TO ECONOMIC DEVELOPMENT

Analysis of institutional and structural factors which determine the course of economic progress in developing countries. Characteristics of less developed areas: agriculture, investment, technology, population, international trade, economic integration.

Dynamics of economic progress and change in industrialized and underindustrialized countries of the
modern world. Historical theories of growth. Empirical case studies. Formulation of development projects and programs. Recommended preparation: ECO 3101 or ECO 3203.
ECS 4024 ECONOMIC PLANNING
Analysis of planning methods in capitalist and socialist economies. Evaluation of macro and micro economic planning tools (input-output and programming techniques). Theory and practice of economic development planning of agriculture, industrialization, foreign trade, and manpower.
ECS 4044 ECONOMICS OF TECHNOLOGICAL CHANGE
Economic analysis of technological possibilities in the production process, and the estimation of production and cost functions. Case studies of research and development (R\&D) and technical innovation. Management of science and technology; transfer and adaptation of intermediate and advanced technologies to emerging nations.
ECS 4403 THE LATIN AMERICAN ECONOMIES
Survey of economic status and problems of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of foreign intervention and dependence, and to different attempts at economic integration.
ECS 4403 LAS ECONOMIAS LATINOAMERICANAS
Estudio de los problemas economicos de Ibero-America, con enfasis en los paises mas grandes. Estudio detallado de problemas de intervencion, dependenia, y integracion economica.
ECS 4404 ECONOMIC INTEGRATION - LATIN AMERICA (5)

Analysis of the methods, meaning and implications of economics in Latin America. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation. Prerequisite: ECO 3003 , or equivalent.
ECS 4430 THE ECONOMIC DEVELOPMENT OF CUBA - PAST AND PRESENT
Survey of the Cuban economy under capitalist and Marxist ideologies. Emphasis on the transition stage and on current policies of economic and social change.
ECS 4432 ECONOMIC INTEGRATION - CARIBBEAN
Analysis of the methods, meaning and implications of economic integration in the Caribbean. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation.
ECS 4433 ECONOMICS OF THE CARIBBEAN
(5) (W)

Survey of the economic systems of the major British, French, Dutch and Spanish areas in the Caribbean.
Special attention devoted to current problems of economic growth and social transformation.
ECS 5025 ECONOMIC PROBLEMS OF EMERGING NATIONS
Specific economic problems of emerging nations and national groupings. Basic approaches to economic development; major proposals for accelerating development. Role of planning. Trade, aid and economic integration. Recommended preparation: ECO 3101 or ECO 3203.
SOC 3949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES
A student majoring in one of the Social Sciences (Economics, International Relations, Political Sciences, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major Jepartment.

## ENGLISH MAJOR

Harry T. Antrim, Professor and Chairperson
Richard A. Dwyer, Professor
Butler H. Waugh, Professor
St. George Tucker Arnold,
Associate Professor

Lynn M. Berk, Associate Professor Charles Elkins, Associate Professor
James Hall, Associate Professor
Richard Sugg, Associate Professor
Donald Watson, Associate Professor

Campus Location: Tamiami Campus only DEGREE: Bachelor of Arts
LOWER DIVISION REQUIREMENTS:
Required Courses: None
Remark: The prospective secondary school teacher should take the Foundations of Education courses in the lower division. (Students interested in teacher certification see note on page 242.)
Required Courses: ..... 45English
Electives: ..... 45

Students in the Teacher Preparation Program carry two majors - English and English Education. They must request admission to both programs. (Studentes interested in teacher certification, see note on page 242.)

## COURSE DESCRIPTIONS

## definition of prefixes

AML-American Literature; CRW-Creative Writing; ENC-English Composition; ENG-English-general; ENL—English Literature; HUM-Humanities; LIN-Linguistics; LIT-Literature; MMC—Mass Media Communication.

## AML 4144 PERIODS IN AMERICAN LITERATURE

(5) (F,W,S,SS)

Individual sections will read and discuss works in the context of such historical settings as the colonial, federal, antebellum, reconstruction, or other periods of the American past. May be repeated.

## AML 5212 MAJOR AMERICAN LITERARY FIGURES

(5) (F,W,S,SS)

Each section will consider the lifework of several authors such as Hawthorne, Melville, Whitman, Twain, James, Faulkner, Mailer, Wright, Baldwin, or others.

## CRW 4240 WRITING FICTION

(5) (F,W,S,SS)

An intermediate course in writing fiction. Admission requires consent of instructor.

## CRW 4340 WRITING POETRY <br> An intermediate course in writing poetry. Admission requires consent of the instructor.

(5) (F,W,S,SS)

ENC 3353 REPORT AND TECHNICAL WRITING
(5) (W,S)

For business, professional, and scientific students needing practice in collecting, organizing, interpreting, and presenting factual material.
ENC 3424 PROBLEMS IN ENGLISH COMPOSITION
(5) (F,W,S,SS)

A composition course designed to improve basic writing skills. Special attention will be paid to grammer, sentence construction, paragraph development, and overall organization.

## ENC 3453 EXPOSITORY WRITING

(5) (F,W,S,SS)

An advanced composition course in the techniques of exposition, argumentation, and persuasion. Special sections for the foreign-born.
ENC 4522 RHETORIC AND POETICS
Ancient and modern theory and practice in discussing the formal properties of elevated language.

## ENG 3070 RESEARCH AND WRITING

(3) $(S, F)$

This course has dual objectives: to acquaint students with basic research methodologies, and give students practice in communicating the data generated by their research. Assignments will include such matters as researching information, documentation, organization, revising rough drafts and presenting the final draft. The primary emphasis will be on using the student's own interests and background as a source of relevant topics upon which to write.
ENG 3101 MAJOR LITERARY MODES
(5) $(F, W, S)$

Individual sections will read and discuss the literary expression of heroic, tragic, comic, satiric, mythic, realistic or other formalized views of human existence. May be repeated.

## ENG 3137 THE MOVIES <br> (5) $(F, S)$

Viewing and discussion of films, with attention to cinematic ways of story-telling and to the popular film as an expression of cultural values.
ENG 3500 ENGLISH LINGUISTICS $\quad(5)(F, W$,
Study of the sounds, vocabulary and sentence patterns of standard modern English. Other topics include meaning, social and regional dialects, laguage change, and style.

## ENG 4103 MAJOR LITERARY GENRES

(5)(F,W,S,SS)

Individual sections will read and discuss the form and development of novels, drama, poetry, short fiction, or such special forms as biographies, folksongs and tales, or essays, among other genre. May be repeated.
ENG 4134 HISTORY OF THE FILM
Discussion, with examples, of the development of cinematic art, from its European and American begin nings to its place as a major world art form.

## ENG 4141 STUDIES IN THE FIL.M

Intensive examination of the work of a particular industry, group, or director. May also explore various film genres, e.g., documentary, horror, the Western. With change of content, may be retaken for credit.
ENG 4555 MODERN ENGLISH GRAMMAR
Practical study of syntax. Prerequisite: ENG 3500, or consent of the instructor.

Individual conferences, assigned readings, and reports on independent investigations, with the consent of the Chairperson.
ENG 5517 HISTORY OF THE ENGLISH LANGUAGE
(5) (S)

Study of the development of the grammar and vocabulary represented in samples of the English language
from the 8 th century to modern times. Prerequisite: ENG 3500, or consent of the instructor.
ENG 5816 LITERARY CRITICISM AND SCHOLARSHIP
Techniques and goals of humanistic research, bibliography, and critical commentary.
ENG 5907 INDEPENDENT STUDY
(Variable) (F,W,S,SS)
Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chairperson.
ENG 6909 INDEPENDENT STUDY
(Variable (F,W,S,SS)
Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chairperson
ENL 4137 SHAKESPEARE: HISTORIES
Reading and informal dramatic interpretation of representative plays.
ENL 4138 SHAKESPEARE: COMEDIES
Reading and informal dramatic interpretation of representative plays.
ENL 4139 SHAKESPEARE: TRAGEDIES
(5) (W)

Reading and informal dramatic interpretation of representative plays

## ENL 4540 PERIODS IN ENGLISH LITERATURE

(5) $(F, W, S)$

Individual sections will read and discuss works in the context of such historical settings as the medieval, Tudor, Restoration, Victorian, and other periods of the English past. (May be repeated.)
ENL 5220 MAJOR BRITISH LITERARY FIGURES
(5) (F,W,S,SS)

Each section will consider the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated.
HUM 3949 COOPERATIVE EDUCATION IN HUMANITIES
A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.
HUM 4949 COOPERATIVE EDUCATION IN HUMANITIES
A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.
LIN 4400 APPLIED LINGUISTICS
Linguistics in the classroom. English as a second language. Stylistics. Dialects.
LIT 3333 SURVEY OF AFRO-AMERICAN LITERATURE
(5) (S,F,)

Study of Afro-American literature from Phyllis Wheatley to James Baldwin. The first half of the course will be concentrated on writers before World War II while the second half will give students the opportunity to study authors from 1920 to present.

## LIT 3510 THEMES IN LITERATURE

(5) (F,W,S,SS)

Individual sections will read and discuss works relating to topics of current and enduring interest. Discussion of literature as it reflects the identities of men and women: their places in families, in past, present, and future societies, in the natural world, and the cosmic order. May be repeated.
LIT 3930 SPECIAL TOPICS
(Variable) (F,W,S,SS)
A course designed to give students an opportunity to pursue special studies not otherwise offered. Requires consent of the Chairperson.

## LIT 4290 REGIONAL LITERATURE IN ENGLISH

Individual sections will discuss English writing in Ireland, Scotland, Wales, Canada, the Caribbean, India, sub-Saharan Africa, and Oceania, as well as distinctive regions in England and America. May be repeated
LIT 4349 RHETORIC AND COMMUNICATION: BLACK RHETORIC
(5) (F)

Black people in America have been involved in several significant movements designed primarily to meet the challenges of institutionalized racism. The course will focus on these movements, i.e., abolition, segregation, integration, and emigration, giving special emphasis to each of the movements' leading rhetors, their arguments, counter-arguments, and appeals.
LIT 4401 LITERATURE AMONG THE ARTS AND SCIENCES
Individual sections will relate the study of literature to other disciplines in the humanities, fine arts, the social and natural sciences. May be repeated

## LIT 4930 SPECIAL TOPICS

(Variable) (F,W,S,SS)
A course designed to give groups ol students an opportunity to pursue special studies not otherwise of lered Requires consent of the Chairperson.
LIT 5542 LITERARY MOVEMENTS
(5) $(F, W, S)$

Individual sections will study the authors, works, and audiences involved in such phenomena as Humanism, Mannerism, Romanticism, Symbolism, the Harlem Renaissance, and others. May be repeated
LIT 5934 SPECIAL TOPICS
(Variable) (F,W,S,SS)
A course designed to give groups of students an opportunity to pursue special studies not otherwise oflered. Requires consent of the Chairperson

Will include the study of such topics as: mass communication and society, popular culture, communication and social order, classic studies in mass communication, propaganda, mass media and government, and problems of the mass media. Topics will vary from quarter to quarter.

## ENVIRONMENTALSTUDIES

Dr. J. Gottlieb, Director, Political Science
Dr. K. Boodhoo, International Relations
Dr. K. Brady, Economics
Dr. J. Brown, Anthropology
Dr. T. Casey, Economics
Dr. R. Clem, International Relations
Dr. W. Goldberg, Biological Sciences
Dr. K. Hardy, Physical Sciences
Dr. A. Herriott, Physical Sciences
Dr. J. Huchingson, Philosophy/Religion
Dr. F. Jhabvala, International Relations

Dr. F. Maurrasse, Physical Sciences
Dr. A. McArthur, Biological Sciences
Dr. H. Moore, Physical Sciences
Dr. J. Parker, Physical Sciences
Dr. T. Pliske, Physical Sciences/Biological Sciences
Dr. J. Rotton, Pychology
Dr. U. Sayeed, Physical Sciences
Dr. J. Sheldon, Phyical Sciences
Dr. K. Williams, Phycial Sciences

This is an interdisciplinary program, involving eight departments in the College of Arts and Sciences (Physical Sciences; Biological Sciences; Psychology; Political Science; Anthropology/Sociology; International Relations; Philosophy/Religion; and Economics), which prepares students to work in professions with an environmental emphasis. Students may choose either a Bachelor of Arts (non-science) program or a Bachelor of Science (science) program. Degrees are awarded by the Department of Physical Sciences.
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Recommended Courses: Natural History of South Florida; Conservation of Natural
Resources; Man and Environment; College Algebra.
UPPER DIVISION PREPARATION:
Required courses: ECO 3003 - Economics, Man, and Society; POS 4044 - Government
and Politics of the United States.
UPPER DIVISION PROGRAM:
Required Courses:
ANT $3403 \quad$ Cultural Ecology 5
ECP 3303 Introduction to Environmental Economics 5
EVR 3011-3012-3013 Environmental Science 15
EVR 4920 Environmental Colloquium 5
EVR 4905 Independent Study or Community Project 5
PHM 4030 Man and Nature 5
PUP 4203 Environmental Politics and Policies 5
Area of Specialization Courses:
The student must take three courses from one of the areas below.
Energy and Resource Management
ANT 3263 World Food Supply
ECP 4314 Land and Resource Economics
EVR 4311 Energy Resources (required for this concentration)
GEO 3510 Earth Resources
GLY 3106 Environmental Earth Sciences
INR 4054 World Resources, World Order
Human Ecology ANT 4031
DHE 3300
Environmental Revitalization
Human Ecology
PHR 4931 Technology and Human Values

| POS 4154 | Topics in Urban Politics: Urban and <br> Environmental Planning |
| :--- | :--- |
| SOP 4712 | Environmental Psychology |

In exceptional circumstances, the student, in consultation with an environmental advisor, may substitute approved courses for Area of Specialization requirements.

## Electives

DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required courses: Equivalent of 8 semester hours of general biology and general chemistry; 3 semester hours of algebra and trigonometry.
Recommended courses: General Physics, Physical Geology, Conservation of Natural Resources, Man and Environment, Calculus.
Lower or upper division requirements: ECO 3003 - Economics, Man and Society; POS 4044 - U.S. Government and Politics; COP 3110-Introduction to Computers; STA 3122Introduction to Statistics.

UPPER DIVISION PROGRAM:
Required Courses
CHM 3120 Quantitative Analysis or 7
EVS 3420C Environmental Instrumentation
ECP 3303 Introduction to Environmental Economics 5
EVR 3013 Environmental Science III: Ecology of South Florida 5
EVR 4211 Water Resources 5
EVR 4231 Air Resources 5
EVR 4311 Energy Resources 5
EVR 4920 Environmental Colloquium or 5
EVR 4905 Independent Study 5
PCB 3033 Fundamentals of Ecology
PUP 4203 Environmental Politics and Policy 5
Electives:
Additional courses may be taken in consultation with an advisor in a particular area of emphasis such as:

1. Energy and Resources
2. Aquatic Ecology
3. Terrestrial Ecology
4. Air Resources

Energy and Resources Courses
CHM $3400 \quad$ Physical Chemistry for Life Sciences 5
ETM 4225C Energy Systems 5
GEO 3510 Earth Resources 5
GLY 3200 Mineralogy 5
Aquatic Ecology Courses
EVS $3219 \quad$ Aquatic Systems 5
MCB $3013 \quad$ General Microbiology 7
OCB 3010 Biological Oceanography 5
OCB 5635 Marine Ecology 5
OCE 3014 Physical Oceanography 5
ZOO 3023 The Invertebrates 5

BOT 3663 Topics in Tropical Botany 5
ENY 3004 Entomology 5
MCB 3013 General Microbiology 7
MET 4701 Meteorology 5
PCB 4320 Terrestrial Ecology 7
Air Resources Courses
CHM 3200 Survey of Organic Chemistry 7
CHM $3400 \quad$ Physical Chemistry for the Life Sciences 5
EVR 5236 Air Pollution Dynamics 5
MET 4701 Meteorology 5

## MASTER'S PROGRAM IN ENVIRONMENTAL AND URBAN SYSTEMS

Students wishing advanced training in environmental studies may apply to enter the M.S. program in environmental and urban systems, sponsored in cooperation with the School of Technology. The following options or tracks are available in the M.S. program:

Environmental Quality
Urban Planning Systems
Aquatic Resources
Air Resources
Energy Systems
For further information and a complete description of the course offerings, see MASTER OF SCIENCE DEGREE PROGRAM listed separately under Engineering Technology in the School of Technology.

## COOPERATIVE EDUCATION

Students seeking the baccalaureate degree in environmental studies may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends several quarters fully employed in industry or a governmental agency. For further information consult the Department of Physical Sciences, or the Department of Cooperative Education.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

ANT-Anthropology; BOT-Botany; CHM-Chemistry; DHE—Demography and Human Ecology; ECP-Economic Problems and Policy; ENY-Entomology; ETM-Engineering Tech.: Mechanical; EVR-Environmental Studies; EVS-Environmental Science Technology; GEO-Geography-Systematic; GLY-Geology; INR-International Relations; ISC-Interdisciplinary Natural Science; MCB-Microbiology; MET-Meteorology; OCB—Oceanography: Biology; OCE—Oceanography; PCB-Process Cell Biology: PHM—Philosophy of Man and Society; PHR-Interdisciplinary Philosophy/Religion; POS—Political Science: PUP—Public Policy; SOP—Social Psychology; ZOO—Zoology.

## ANTHROPOLOGY

ANT 3403 CULTURAL ECOLOGY

## BIOLOGICAL SCIENCES

BOT 3503 INTRODUCTION TO PLANT PHYSIOLOGY ..... (5)BOT 3663 TOPICS IN TROPICAL BOTANY(5)
BOT 5665 TOPICS IN TROPICAL PLANT SCIENCE ..... (5)
BOT 5665L TOPICS IN TROPICAL PLANT SCIENCE LABORATORY ..... (2)
ENY 3004 GENERAL ENTOMOLOGY ..... (5)
ENY 3004L GENERAL ENTOMOLOGY LABORATORY ..... (2)
MCB 3013 GENERAL MICROBIOLOGY(5)

MCB 3013L GENERAL MICROBIOLOGY LABORATORY
OCB 3010 BIOLOGICAL OCEANOGRAPHY
OCB 5635 MARINE ECOLOGY
PCB 3043 FUNDAMENTAL ECOLOGY
PCB 4320 TERRESTRIAL ECOLOGY
PCB 4320 LERRESTRIAL ECOLOGY LABORATORY
PCB 5316 MARINE ECOLOGY LABORATORY (2)
ZOO 3023 INVERTEBRATES
ZOO 3023L INVERTEBRATES LABORATORY
ZOO 3423 AMPHIBIANS AND REPTILES
ZOO 3433 BIRDS AND MAMMALS
ZOO 3513 ETHOLOGY

## ECONOMICS

ECP 3303 INTRODUCTION TO ENVIRONMENTAL ECONOMICS

ECP 4314 LAND AND RESOURCE ECONOMICS

## ENVIRONMENTAL STUDIES

EVR 3011 ENVIRONMENTAL SCIENCEI ..... (5)
EVR 3012 ENVIRONMENTAL SCIENCE II(5)
EVR 3013 ENVIRONMENTAL SCIENCE III: ECOLOGY OF SOUTH FLORIDA ..... (5)
EVR 3931 TOPICS IN ENVIRONMENTAL STUDIES ..... (5)
EVR 4021 SURVEY OF ENVIRONMENTAL PROBLEMS I ..... (5)
EVR 4022 SURVEY OF ENVIRONMENTAL PROBLEMS II ..... (5)
EVR 4211 WATER RESOURCES ..... (5)
EVR 4231 AIR RESOURCES ..... (5)
EVR 4311 ENERGY RESOURCES ..... (5)
EVR 4905 RESEARCH AND INDEPENDENT STUDY ..... (VAR)
EVR 4920 ENVIRONMENTAL COLLOQUIUM ..... (5)
EVR 5061 SOUTH FLORIDA ECOLOGY: FIELD STUDIES ..... (3) $(W, S)$
(5)
EVR 5141 ENVIRONMENTAL NUCLEAR CHEMISTRY ..... (5)
EVR 5907 RESEARCH AND INDEPENDENT STUDY ..... (VAR)
EVR 5935 SPECIAL TOPICS(VAR) (W)
EVR 5936 TOPICS IN ENVIRONMENTAL STUDIES ..... (5)
ISC 3949, ISC 4949 COOPERATIVE EDUCATION IN PHYSICAL SCIENCES ..... $(5,5)$
MET 4701 METEOROLOGY ..... (5)
INTERNATIONAL RELATIONS
INR 3043 POPULATION AND SOCIETY ..... (5)
INR 4044 WORLD POPULATION PROBLEMS ..... (5)
INR 4054 WORLD RESOURCES AND WORLD ORDER ..... (5)
PUP 3206 INTERNATIONAL LAW AND THE ENVIRONMENT ..... (5)
PHILOSOPHY AND RELIGIOUS STUDIES
PHM 4030 MAN AND NATURE ..... (5)
PHR 4931 TECHNOLOGY AND HUMAN VALUES ..... (5)
PHYSICAL SCIENCES - CHEMISTRY
CHM 3120 QUANTITATIVE ANALYSIS ..... (5)
CHM 3120 L QUANTITATIVE ANALYSIS LABORATORY ..... (2)
CHM 3200 SURVEY OF ORGANIC CHEMISTRY ..... (5)
CHM 3200L SURVEY OF ORGANIC CHEMISTRY LABORATORY ..... (2)
CHM 3400 PHYSICAL CHEMISTRY FOR THE LIFE SCIENCES ..... (5)
CHM 3400L PHYSICAL CHEMISTRY FOR THE LIFE SCIENCES LABORATORY ..... (2)
PHYSICAL SCIENCES - EARTH SCIENCE
GEO 3510 EARTH RESOURCES ..... (5)
GLY 3106 ENVIRONMENTAL EARTH SCIENCES ..... (5)
GLY 3200 MINERALOGY ..... (5)
GLY 3215L MINERALOGY LABORATORY ..... (1)
GLY 3850 ENVIRONMENTAL GEOLOGY ..... (5)
GLY 3850L ENVIRONMENTAL GEOLOGY LABORATORY ..... (1)
OCE 3014 PHYSICAL OCEANOGRAPHY ..... (5)
POLITICAL SCIENCE
POS 4154 TOPICS IN URBAN POLITICS AND POLICY: URBAN AND ENVIRONMENTAL PLANNING ..... (5)
POS 4933 ENVIRONMENTAL PLANNING AND LAW ..... (5)
PUP 4203 ENVIRONMENTAL POLITICS AND POLICY ..... (5)
PSYCHOLOGY
SOP 4712 ENVIRONMENTAL PSYCHOLOGY(5)
SOCIOLOGY
TECHNOLOGY COURSES
ETM 4225 ENERGY SYSTEMS(5)
EVS 3219 AQUATIC SYSTEMS ..... (5)
EVS 3420 ENVIRONMENTAL INSTRUMENTATION ..... (5)
HISTORY MAJOR
Howard Kaminsky, Professor and Chairperson
Eric Leed, Associate Professor
Brian Peterson, Associate ProfessorDarden Asbury Pyron, Assistant ProfessorHoward Rock, Assistant Professor
Mark D. Szuchman, Assistant Professor
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Arts (*Students interested in teacher certification see note on page 242.)
LOWER DIVISION PREPARATION:Required Courses: NoneRemark: 6 semester hours of advanced history courses may be counted toward the upperdivision major.
UPPER DIVISION PROGRAM:

Quarter Hours
Required Course:
HIS 3001 Introduction to History ..... 5
Courses in the following areas.

1. Medieval History ..... 5
2. Modern European History ..... 5
3. U.S. History ..... 5
4. Asian, African, Latin American or Caribbean History ..... 5
General History Courses ..... 20
These categories are indicated by bracketed numbers at the end of each course description. ..... 45
Electives: ..... 45

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

AMH-American History; EDF-Education: Foundations; EUH-European History; HIS-General; LAH-Latin American History: WOH-World History.

## AMH 3130 THE AMERICAN REVOLUTION

An exploration of the nature of the Revolution from the beginning of the conflict in 1763 through the ratification of the Constitution in 1789. Discussion of the political and economic differences between the colonists and England. along with the meaning that the war had to the different classes of Americans. [3]
AMH 3170 CIVIL WAR AND RECONSTRUCTION
The course will examine the rise and sources of militant sectionalism in the United States, the war itself, and the restoration of the nation. [3]

## AMH 3251 THE GREAT DEPRESSION

This course deals with the experience of the American people in the Great Depression of the 1930s. It examines causes of the depression, government response, and effectiveness of response, as well as looking at the actual daily experience of people during the depression and the changes the depression made in U.S. society. [3]

## AMH 3270 CONTEMPORARY U.S. HISTORY

An examination of major trends, forces and personalities that have shaped the recent American past. [3]

## AMH 3275 THE KENNEDY ERA

This course will explore the Kennedy image and the reality of the Kennedy family's impact within the context of recent American political and social history. [3]

## AMH 3317 AMERICA AND THE MOVIES

An examination of the social and cultural history of 20th century America through its movies. [3]

## AMH 3331 AMERICAN INTELLECTUAL HISTORY I

This course will trace the origins and development of the main ideas and intellectual themes of AngloAmerican history during the colonial and early national period, 1600-1815. It will stress social ideas and popular concepts, and relate them to the formation of dominant American national characteristics. [3]

## AMH 3332 AMERICAN INTELLECTUAL HISTORY II

This course will emphasize the full flowering of individualistic liberalism in 19th century American thought, and trace the implications of and reaction against this tradition down to the present. [3]
AMH 3354 AMERICAN PRESIDENTS: WASHINGTON TO MCKINLEY
This course will examine the personalities, policies and politics of American presidents in the 18th and 19th centuries. [3]
AMH 3355 TWENTIETH CENTURY AMERICAN PRESIDENTS
This course will examine the personalities, policies and politics of American presidents from Theodore Roosevelt to the present. [3]

## AMH 3420 FLORIDA HISTORY

A history of Florida from the time of the Indian until today. The course covers political, economic, social and cultural developments; it devotes special attention to the dependent position of Florida in the national economy, and the impact of this dependence on resources and people. [3]

## AMH 3428 MIAMI SOCIAL HISTORY

An examination of the history of South Florida and of the ethnic groups which make up the Miami population, particularly Blacks, Jews, Cubans and white southerners. [3]

## AMH 3440 THE GREAT AMERICAN WEST

The course will explore the meaning of the West for both the settlers and modern Americans. Using song, film, novels, art, etc., the course will examine the lives and values of the Indians, mountain men, farmers, ranchers, and cowboys. [3]
AMH 3500 UNITED STATES LABOR HISTORY
A history of the experience of working class people in the United States and of the trade union movement Irom colonial times to the present. [3]

## AMH 3560 HISTORY OF WOMEN IN THE UNITED STATES

A survey of the changing dimensions of women's lives from the colonial era of U.S. history to the present. The course will examine the changing economic, social and political position of women as well as the development of teminist movements and organizations. [3]

## AMH 3570 AFRO-AMERICAN HISTORY

A survey of Black society in the United States and its relation to the political, economic, social and cultural history of America. [3]
AMH 4025 THE UNITED STATES IN THE 19TH CENTURY
This course will cover the period characterized by "laissez faire" ideology, from Jackson to Mckinley. It will locus upon developments in national politics and the ways in which they reflect economic growth and changes in the social structure. [3]
AMH 4030 TWENTIETH CENTURY UNITED STATES HISTORY
This course will cover the history of the US from the election of McKinley in 1896 to the Watergate crisis of the 1970 s . [3]
AMH 4110 COLONIAL U.S. HISTORY, 1600-1750
(5)

This course will examine the American colonial experience from the earliest settlements at Jamestown and Plymouth to the eve of the American Revolution. Particular emphasis will be on religion, social struclure politics and slavery. [3]

An examination of American history Irom the American Revolution through the Age of Jackson. This course will emphasıze the growth of democratic politics and political parties, the spirit of nationalism, the problem of slavery, and the westward movement. [3]

## AMH 4930 TOPICS IN U.S. HISTORY

An examination of selected topics or themes in U.S. history. The themes will vary Irom quarter to quarter. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). [3]
EDF 3521 EDUCATION IN HISTORY
An examination of the concepts of childhood, and processes of social initiation in differing historical contexts.

## EUH 3100 THE ANCIENT NEAR EAST

A survey of the history of ancient Mesopotamia. Egypt and Israel. The course will stress the interaction of social structure with religion in each of the three societies.
EUH 3142 RENAISSANCE AND REFORMATION
A study of the development of humanism in Italy and Protestantism in Germany, and the impact of these new philosophies on Europe in the lourteenth, fifteenth and sixteenth centuries. [2]
EUH 3186 HISTORY OF KING ARTHUR AND THE KNIGHTLY LEGEND
A study of Arthurian romance from the 12th to the 15 th centuries, as the self-image of aristocracy. The following themes will be emphasized: chivalry, adventure, erotic idealism, Christian consecration and the creation of secular individualism. [1]
EUH 3203 EUROPE IN THE 17TH CENTURY
An examination of the "radical century" which detined many of the values of the modern age: the work ethic, the scientific view of nature, the notion of market society, the modern state, and bourgeois ideology. The course will emphasize the Puritan Revolution in England and rise of absolute monarchy in France. [2]

## EUH 3420 GREECE AND ROME

An overview of German history with special emphasis on the development of the National Socialist movement. Political, economic, social, cultural and religious aspects of German history will be covered. [2]
EUH 3570 RUSSIAN HISTORY

This course deals with Russia since 1917 and focuses particularly on the theory and practice of communism in the Soviet Union. The impact of communism on the lives of the people, whether in politics, economics, or culture, will be examined. [2]
EUH 3601 MEDIEVAL CULTURE
Selected topics in the cultural history of Europe from 500 to 1500: epic and knightly romance; Christian theology and spirituality: scholastic philosophy; Romanesque and Gothic arts; the rise of literature in the vernacular; the culture of the layman; and the contribution of women. [1]
EUH 3611 EUROPEAN CULTURAL HISTORY
An examination of changes in the social and political structure of Europe through film, art and liferature. This is an introductory course to both European social history and cultural history in the last two hundred years. [2]
EUH 4121 EUROPE IN THE EARLIER MIDDLE AGES
A history of Europe from the fall of the Roman Empire in the West (ca. 500 AD ) to the first Crusade (1095). The formation of feudal society, the military upper class, the imperial papacy, the monastic order, the interplay between Christian and worldly ideals. [1]
EUH 4123 EUROPE IN THE LATER MIDDLE AGES
Europe from the twelfith through the fifteenth centuries. The formation of territorial states and an aristocratic order of status: Romanesque and Gothic arts; courtly romance and chivalry; development of subjectivity and individual self-consciousness; heresy, inquisition, and social revolution. [1]

## EUH 4187 TOPICS IN MEDIEVAL EUROPEAN HISTORY

An examination of selected topics or themes in Medieval history. The themes will vary from quarter to quarter. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). [1]

## EUH 4200 EARLY MODERN EUROPE, 1500-1650

 dissent. [2]
## EUH 4201 EARLY MODERN EUROPE 1650-1789

This course will examıne the two major revolutions which have shaped our time: the French Revolution and the Industrial Revolution. Beginning with Rousseau, the course will explore industrializing England, and end with an analysis of European politics and culture on the eve of World War I. [2]

## EUH 4206 MODERN EUROPE, 1900-PRESENT

An examination of Europe from the first World War to the present. The course will explore the impact of industrialization, the World Wars, and the rise of fascism and communism. [2]

## EUH 4286 TOPICS IN EUROPEAN HISTORY

An examination of selected topics or themes in early modern and modern European history. The themes will vary from quarter to quarter. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). [2]

## HIS 3001 INTRODUCTION TO HISTORY

Approaches to the study of the Western tradition. Required of all majors and those seeking certification to teach history
HIS 3244 HISTORY OF COMMUNISM
A survey of the history of communism from the writings of Marx through the Soviet, Chinese, and Cuban revolutions. The course will consider communism both in theory and in practice.

## HIS 3308 WAR AND SOCIETY

An examination of the ways societies have organized themselves for external and internal wars. The course will also explore the changing conduct of war, the image of the warrior, and the ways in which military institutions have crystalized class structures.
HIS 3473 THE HISTORY OF SCIENCE AND TECHNOLOGY
This course will examine the history of western civilization in terms of the development of science and technology. It will focus upon the invention of new techniques and productive processes, and upon the way technology and science have shaped western society, particularly in regard to art and ideas.
HIS 3930 SPECIAL TOPICS
(VAR)
An examination of specific themes or topics in history. The theme will vary from quarter to quarter. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule).
HIS 4908 INDEPENDENT STUDY
(VAR)
Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor.
HIS 4930 SPECIAL TOPICS (VAR) An examination of specific themes or topics in history. The theme will vary from quarter to quarter. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule).
HIS 5289 COMPARATIVE HISTORY
A study of specific topics in history that cut across regional, national and chronological lines. The topics will change from quarter to quarter, and with a change in content, the course may be repeated. (The topic of the course will be announced in the yearly schedule).
HIS 5908 INDEPENDENT STUDY
(VAR)
Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor.
HIS 5910 ADVANCED RESEARCH AND SEMINAR
Small group sessions which will analyze particular subject areas in history, with the consent of the instructor.
HIS 5930 SPECIAL TOPICS (VAR)
An examination of specific themes or topics in history. The theme will vary from quarter to quarter. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule).
LAH 3410 MEXICO AND THE CARIBBEAN
An overview of the themes that have generated the histories of several nations in and around the Caribbean since the nineteenth century. [4]
LAH 3482 MODERN CUBA
An overview of the socio-economic and political setting in Cuba since the mid-nineteenth century. [4]
LAH 4132 COLONIAL LATIN AMERICA: THE FORMATIVE PERIOD
An examination of Latin America in the formative period, focusing upon the Iberian experiences, conquest, reconquest, ethnic amalgamation, and Latin American economy and social organization in the 15 th and 16 th centuries. [4]
LAH 4133 COLONIAL LATIN AMERICA: THE MATURE PERIOD
An examination of Colonial Latin America in the 17th and 18 th centuries. The course will focus upon the formation of the landed estate, urban functions, labor, Indian relations, the Church, and the Enlightenment. [4]
LAH 4201 LATIN AMERICA: THE 19TH CENTURY
A review of important issues of nation-building in the more influential Latin American countries. Topics will include federalism, centralism, immigration, economic development, and imperialism. [4]

## LAH 4300 LATIN AMERICA: THE MODERN PERIOD

A review of topics in the histories of selected Latin American nations that have developed since the late 19th century, including discussion of race relations, dictatorship, modernization, capitalism, arid leftist and rightist solutions. [4]
LAH 4474 TOPICS IN CARIBBEAN HISTORY
An examination of selected topics or themes in Caribbean history. The themes will vary from quarter to quarter. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). [4]

An examination of the world-wide political struggle between capitalism and communism. The course will stress domestic as well as international power-political rivalries. Special emphasis will be given to Japan, China, Cuba, France, the United States, India, and Eastern Europe.

## WOH 3280 WOMEN'S HISTORY

A survey of the position of women in the major world civilizations. The course examines the position of women lrom the stone age 10 the present, with particular attention to both women's actual function in society and the ideal definition of womanhood in different societies.

## WOH 3283 JEWISH HISTORY

(5)

A survey of the major currents of Jewish history.

# HUMANITIES MAJOR 

Richard P. Sugg, Associate Professor of English, and Director of Humanities<br>Ramon Mendoza, Professor of Modern Languages

The Humanities program at F.I.U.'s North Miami campus offers a well-structured, interdisciplinary curriculum. The goal envisioned by this program is to confront the student with those values and issues concerning man and society which extend beyond the scope of both natural and socia! sciences, and which cannot be adequately described and analyzed by the methodologies of these sciences.

The Humanities focus primarily upon the nature of man and his values, as well as upon his major concerns in society and his views of the world. These concerns are now, and have been through the ages, the preferred object of thought of philosophers, poets, dramatists, fictionists and mystics. Their views, manifested primarily in written texts, have become the reservoir of mankind's most outstanding intellectual achievements. Such texts include the works of painters, musicians, and sculptors, as well as the productions of mass media and popular culture which must now engage the serious student of our century's culture and its future.

The Humanities program, however, will not be merely theoretical. It seeks to develop in the student those skills and attitudes which are more specifically human. These are primarily all skills of verbal and written communication, analytical skills, and open-minded and critical attitudes towards the problems of our changing society. Also, the development of artistic sensitivity and expression, and of all forms of imaginative creativity, will be main targets of our program. Above all, the program hopes to challenge the student to become a decisive factor in raising the cultural level of our society by bringing his or her humanistic approach to bear upon its individuals, institutions, and cultural programs through the mass media. The program will be particularly useful to students who wish to pursue post-graduate degrees requiring a general educational background, such as Law School, International Relations, and all the traditional Liberal Arts programs.
Campus Location: North Miami Campus only
DEGREE: Bachelor of Arts

## LOWER DIVISION PREPARATION:

Recommended courses: a basic interdisciplinary survey of Western civilization, including the Ancient, Renaissance and Modern worlds; foreign language; English composition and literature.
UPPER DIVISION PROGRAM:
Five Humanities courses ( 25 hours) chosen from:

1. HUM 3024 Introduction to the Humanities
2. HUM 3813 Applied Humanities
3. HUM 3872 Perspectives of the Humanities
4. HUM $4450 \quad$ Cultural Heritages and Changes
5. HUM 4542 Human Concerns
6. HUM 4920 Colloquium

Four Elective discipline courses ( 20 hours),
chosen from all those offered by:
English
Modern Languages
Philosophy \& Religion
History
Fine Arts
Nine general electives (45 hours)
These courses may be taken outside of the major.
Language Requirement:
Reading knowledge of a second language at an intermediate level.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

HUM-Humanities
The Humanities faculty will offer courses in the following broad areas:

## HUM 3813 APPLIED HUMANITIES

(1-30)
In these courses, the faculty and students will attempt to answer questions such as: What is the role of the Humanities in social change? . . . in the formation of individual and collective psychologies? . . . in artistic creativity and scientific experimentation? How can the skills in verbal and written communication that the Humanities teach be applied in the comtemporary world?
HUM 3872 PERSPECTIVES OF THE HUMANITIES
Courses in this area will focus upon specific topics which involve a study of the nature and methods of the Humanities; the role and relationship of the Humanities to mass media; the functions of the Humanities in democratic and socialist countries; the relationships of the Humanities to science, technology, and the professions.
HUM 4450 CULTURAL HERITAGES AND CULTURAL CHANGES
The focus here will be upon varieties of culture in the past and present - literary culture and media culture, for example - upon cultural evolution and revolution; upon ethnicity and pluralism; upon subcultures and countercultures.

## HUM 4542 HUMAN CONCERNS

(1-20)
Courses under this heading will concentrate upon various concepts of the study of human nature and human society; the place of the religious and the erotic; work, play, and leisure; human rights and social policies; and man's vision of his future.

## HUM 4920 COLLOQUIUM

The colloquium will provide a forum for discussion of contemporary issues and problems about which the Humanities should have important things to say. Faculty and students will pursue the meaning and future of the Humanities in an industrial and technological society, in the education processes and social institutions of today.

## COURSES IN RELATED DISCIPLINES

Humanities majors should develop their programs of study by choosing courses in English, History, Philosophy, Religion, and Modern Languages that will add to their skills in communication, broaden their knowledge of the arts and literature, and increase their understanding of their cultural past. The Humanities faculty will work closely with the students to tailor each program of study to particular interests and needs.

# INTERNATIONAL RELATIONS MAJOR 

Ken I. Boodhoo, Associate Professor and Chairperson
Ralph S. Clem, Associate Professor
Farrokh Jhabvala, Assistant Professor

Charles G. MacDonald, Assistant Professor<br>Thomas A. Breslin, Assistant Professor<br>Ivan C. Harnanan, Visiting Assistant Professor

Campus Location: Tamiami and North Miami Campuses
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Recommended Courses: Economics, foreign languages, geography, history, international relations, introduction to statistics, political science, sociology.

Required Courses
GEA 3000 World Regional Geography INR 3003 Foundations of International Relations INR 4605 Approaches to International Relations

Breadth Requirements:

At least one course in each of the following four fields: area
studies (regional courses on Europe, the Caribbean, Latin
America, Africa, Asia, or the Soviet Union); population
studies or geography; international law; issues and
problems in international relations.
$\begin{array}{ll}\text { Other Requirements: } & 10\end{array}$
Ten additional credits in international relations, of which 5 must be taken within the department and 5 may be in approved internationally related courses from other departments or schools (for example: political science; economics; sociology; business; hotel, food, and travel)

## Electives:

Courses designed to meet particular professional goals. The
student is encouraged to consider a dual major in
related fields; to pursue courses in foreign languages and
methodology; and to work toward appropriate academic certificates (i.e., Caribbean Studies, Latin American Studies).
Minor:
Required Courses: Any five lecture courses
THE DUAL MAJOR: The student is encouraged to pursue a dual major within the 90 quarter hour upper division requirement: the balance of 45 quarter hours between the 90 required to graduate and the 45 required for the major in International Relations is almost always sufficient to satisfy the requirements of a second major. The dual major program allows a student to add an important international dimension (and certification) in other academic fields.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

CPO-Comparative Politics; GEA-Geography-Regional (Area); HFT-Hospitality, Food, Tourism; INR-International Relations; POS-Political Science; PUP-Public Policy; SOC-Sociology.
CPO 3326 POPULATION AND GEOGRAPHY OF THE CARIBBEAN

Introduction to the physical, cultural and political geography of the Caribbean. Emphasis on population
patterns, problems of population growth, and ethnicity.

## GEA 3000 WORLD REGIONAL GEOGRAPHY

A systematic survey of the major regions and countries of the world, with regard to their physical, cultural, and political characteristics. Emphasis upon climate, natural resources, economic development, and population patterns.

## GEA 3400 POPULATION AND GEOGRAPHY OF LATIN AMERICA

Introduction to the physical, cultural, and political geography of Latin America. Emphasis on population patterns and problems of population growth, systems of land use and tenure, economic development, natural resources, and agriculture.

Topics discussed include geographic aspects of population and ethnicity, with emphasis on sources and analysis of data and pertinent concepts. Prerequisite: GEA 3000 or permission of instructor.
HFT 3700 TOURISM AND INTERNATIONAL AFFAIRS
An introduction to basic elements of international tourism; an inquiry into the transnational influence of tourism as affected by its institutional organization, by the leisure traveler, and by the host national; and a review of opportunities for policy-making by the group, the State, and international and global agencies.
HFT 4700 ALTERNATE TOURISM SCENARIOS AND STRATEGIES
A course for the student familiar with tourism in the context of international affairs; tourism as migratory aspect: tourism as international medium; tourism and the export of technology; tourism and national dependency; the marketing of globalism through tourism; others. The course includes strategies laboratory.
INR 3003 FOUNDATIONS IN INTERNATIONAL RELATIONS
An examination of international political, economic, and social systems. Emphasis is placed on basic approaches to the study of international relations.
INR 3004 PATTERNS OF INTERNATIONAL RELATIONS
The course deals with the development and practice of key concepts of international relations as seen in the historical perspective of the 19th and 20th centuries. The course is structured so as to emphasize the continuity and co-existence of the several concepts during the 20th century, and to provide an outline of modern diplomatic history
INR 3031 THE FUTURE OF THE INTERNATIONAL SYSTEM
Explores probable and improbable international futures through the use of simulations, gaming, and speculative literature. Focuses upon alternatives to present international arrangements.

## INR 3043 POPULATION AND SOCIETY

Introduction to basic demographic concepts: fertility, mortality, migration, urbanization. Discussion of economic development, modernization and population change. Examination of sources of data and background information including censuses and vital statistics, and their utilization.
INR 3081 ISSUES AND PROBLEMS IN INTERNATIONAL RELATIONS
Examines selected world and regional issues and problems. Topics vary according to the instructor.
INR 3214 INTERNATIONAL RELATIONS OF EUROPE
An examination of the international, social, economic, and political life of contemporary Europe.
Emphasis given to international organizations and the trend toward economic and political integration.

## INR 3226 INTERNATIONAL RELATIONS OF SOUTH ASIA

A study of South Asia as a regional international system with special emphasis on the period 1945 to the
present. Interaction between the regional and world systems. Role of the super-powers.
INR 3245 INTERNATIONAL RELATIONS OF LATIN AMERICA
An examination of international, social, economic, and political life of Latin America. Emphasis given to the role of international organizations; regionalism; and the trend toward economic integration.

## INR 3246 INTERNATIONAL RELATIONS OF THE CARIBBEAN

An examination of the international social, economic, and political life of the Caribbean. Includes English, Spanish, and French speaking regions.

## INR 3274 INTERNATIONAL RELATIONS OF THE MIDDLE EAST

An examination of the international social, economic, and political life of the Middle East. The role of oil in the region will receive special attention.

## INR 3502 INTERNATIONAL ORGANIZATIONS

The study of international political, economic, and social organizations and their impact upon the relations between nations. Emphasis on the constitution, voting, membership, security and operation of such organizations, and the settling of international disputes through these bodies.
INR 4024 ETHNICITY AND NATIONALITY: WORLD PATTERNS AND PROBLEMS
A systematic survey of multi-national states and their current political and socioeconomic situations. The concept of ethnicity and its correlates. Conceptual bases of ethnic integration, assimilation, and stratification. The macro and micro-scales: country, region, city, neighborhood. The consequences of modernization and economic development.
INR 4033 INTERNATIONAL COMMUNICATION
The course will explore language as the medium of national and international communication; the multiple and otten conflicting roles of language as unifier and isolator of political and social entities.

## INR 4044 WORLD POPULATION PROBLEMS

Analysis of problems of population growth, economic development, and food supply. The impact of population growth upon the world political system. The Green Revolution and its implications. Environmental consequences of population growth. Prerequisite: INR 3043

## INR 4054 WORLD RESOURCES AND WORLD ORDER

An examination of the impact of the quantity and distribution of the world's resources upon the relations between nations. The availability of mineral resources and food, in particular, will receive attention; and an assessment will be made of the international economic and political implications deriving therefrom.

## INR 4245 CARIBBEAN REGIONAL RELATIONS

An examination of the lorces and institutions which contribute to or inhibit cooperation and integration in the Caribbean. Prerequisites: INR 3246, CPO 3323, ECS 4432 or ECS 4433.
INR 4283 INTERNATIONAL RELATIONS, DEVELOPMENT, AND THE THIRD WORLD
An examination of the impact of the theory and practice of development and the relations between nations, with particular emphasis on the Third World. Attention given to the role of international political and economic organizations in the development process

An intensive examination of selected topics in international law and relations among nations. Topics will vary according to the interests of the instructor and the students.

## INR 4417 INTERNATIONAL RELATIONS AND INTERNATIONAL LAW

World order and international relations. Current trends in the theory and practice of international law. Progressive development of international law through international institutions, in such matters as intervention, use of force, human rights, and the law of the sea
INR 4605 APPROACHES TO INTERNATIONAL RELATIONS
Analysis and conceptualization of the forces and conditions which influence relations among nations. Emphasis is on the provision of an analytical basis for the study of international relations. Prerequisite: INR 3003 or permission ol instructor

## INR 4905 INDEPENDENT STUDY

## INR 4931 TOPICS IN INTERNATIONAL RELATIONS

Varies according to the instructor.
INR 5086 TOPICS IN.INTERNATIONAL RELATIONS
Varies according to the instructor.
INR 5906 INDEPENDENT STUDY

## POS 4692 LAW AND THE PROCESS OF CHANGE

An exploration of the role of law and legal institutions in the process of modernization, with particular emphasis on developing countries.
PUP 3206 INTERNATIONAL LAW AND THE ENVIRONMENT
Introduction to the growing body of international laws on environmental issues, with special emphasis on important cases. Recent attempts to coordinate and regulate activities alfecting the global environment, with particular attention to the U.N. Environmental Agency.

## SOC 3949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES

A student majoring in one of the Social Sciences, (Economics, International Relations, Political Sciences, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Cooperative Education Program and major department.
SOC 4949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES
A student majoring in one of the Social Sciences, (Economics, International Relations, Political Science, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Cooperative Education Program and major department.

## LIBERAL STUDIES MAJOR

## Brian Peterson, Director of Liberal Studies and Associate Professor of History

The purpose of the Liberal Studies Program is to expose the student to the broadest possible range of courses offered in the College, while at the same time granting the opportunity to pursue an individualized program of studies under the Liberal Studies guidelines. These guidelines include six categories of courses: (1) Foundations of Liberal Studies, a tenhour core course in the Arts and Sciences, to be taken by Liberal Studies students as early in their work as possible; (2) Interdisciplinary Colloquia, two courses (of five hours each) involving faculty from several departments of the College and dealing with topics which cut across disciplinary lines; (3) Scientific Analysis, two courses (of five hours each) which expose the student to the scientific method and its application to problems in biology, physics, chemistry, earth science, experimental psychology, and environmental science; (4) Humanistic Analysis, two courses (of five hours each) which deal with the analysis of literary and historical texts or works of art and music; (5) Social Analysis, two courses (of five hours each) which expose the student to the basic theories and methods of social scientists in the fields of political science, economics, social psychology, sociology, anthropology, and social-science-oriented history; (6) Artistic Creation, one five-hour course in studio art or music, creative writing, or theater, which allows the student to experiment with her or his own creativity and to experience the work of the artist.

Students are free to choose any combination of courses within these guidelines. Under the advisement of the Director of Liberal Studies, the student will be encouraged to pursue an individualized and focused program.
CAMPUS LOCATION: Tamiami Campus only
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Required courses: noneRecommended courses: Arts and Sciences concentration recommended.
UPPER DIVISION PROGRAM:
Major:
Required courses.55
Courses offered by any of the units of the College of Arts andSciences, chosen in accordance with academic guidelines of theProgram of Liberal Studies, to meet requirements in thefour following areas:
Scientific Analysis ..... 10
Humanistic Analysis ..... 10
Social Analysis ..... 10
Artistic Creation ..... 5
Interdisciplinary Colloquia offered by the Liberal Studies Program ..... 10
Foundations of Liberal Studies ..... 10
Electives: ..... 35
Limitations: If the student wishes to obtain a second major concurrently, no more than fifteen credit hours taken to meet the requirements of the other major may be counted towards the requirements of Liberal Studies. If she/he wishes to obtain a minor concurrently, no more than ten credit hours taken to meet the requirements of the minor may be counted towards the requirements of Liberal Studies. Additionally, no student is allowed to take more than 30 hours in one discipline.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIX

IDS-Interdisciplinary Studies

## IDS 3930 FOUNDATIONS OF LIBERAL STUDIES

(Note: This course will be offered in two formats: either as an intensive, one-quarter, 10-hour course; or as two successive 5 -hour courses offered over two quarters.) This will be a broad synthesis of knowledge and methods in the Arts and Sciences, taught from the perspective of different disciplines. Specific topics will be announced in advance.
IDS 4905 INDEPENDENT STUDY
Cross-disciplinary topics for individual study and research to be chosen by External Degree students in consultation with their faculty advisors.

## IDS 4920 LIBERAL STUDIES COLLOQUIA

Individual sections will study, from an interdisciplinary perspective, issues selected and presented jointly
by college faculty. Specific topics will be announced in advance.

## DEPARTMENT OF MATHEMATICAL SCIENCES

Samuel S. Shapiro, Professor and<br>Chairperson<br>Robert C. Fisher, Professor<br>Malcolm H. Gotterer, Professor<br>Toby S. Berk, Associate Professor<br>John C. Comfort, Associate Professor<br>William T. Kraynek, Associate Protessor<br>Anthony C. Shershin, Associate Professor<br>James F. Slifker, Associate Professor<br>Willie E. Williams, Associate Professor<br>Carlos W. Brain, Assistant Professor

Gauri L. Ghai, Assistant Professor<br>Michael R. Gross, Assistant Professor<br>Paulette Johnson, Assistant Professor<br>Linda M. Lawson, Assistant Professor<br>Jainendra K. Navlahka, Assistant Professor<br>Ralph P. Romanelli, Assistant Professor<br>Richard L. Rubin, Assistant Professor<br>Domitila Fox, Instructor Carol Henley, Instructor Ina Parks Howell, Instructor Orlando Sauleda, Instructor

## MATHEMATICS

## LOCATION: Tamıami Campus Only

DEGREE: Bachelor of Science

Remarks: No mathematical sciences courses can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a mathematical sciences course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

## STATISTICS

LOCATION: Tamiami Campus Only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: calculus including multivariable calculus; introductory course in computer programming and linear algebra.
Remarks: If an entering statistics major student has not met a lower division requirement, the equivalent course must be taken at the University, and will be counted as a non-major elective. The equivalent courses are: MAC 3411, MAC 3412, MAC 3413 (Calculus); COP 3112 (Programming); MAS 3103 (Linear Algebra).

## UPPER DIVISION PROGRAM:

## Major:

Required Courses:
STA 3321 Introduction to Mathematical Statistics I 5
STA 3322 Introduction to Mathematical Statistics II 5
STA 3163 Introduction to Statistical Analysis I 5
STA 3164 Introduction to Statistical Analysis II 5
MAA 4211 Advanced Calculus I 5
MAA 4212 Advanced Calculus II 5
Additional Mathematical Sciences courses with at least two statistical courses 15
Electives: 45
90
Remarks: Statistics courses are listed under mathematical sciences. The student must consult his or her advisor at the University to determine which courses, in addition to the required courses listed above, satisfy the requirements for a statistics major.

## Minor:

Quarter Hours
Required Courses: 20
STA 3321 \& STA 3322 Introduction to Mathematical
Statistics I and II
10
STA 3163 \& STA 3164 Introduction to Statistical Analysis I and II
10

20
Remarks: No Mathematical Sciences courses can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a Mathematical Sciences course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substifution for the requirement of the minor.

## COMPUTER SCIENCE

## LOCATION: Tamiami and North Miami Campuses

DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION: As part of the 90 quarter hours ( 60 semester hours) of lower division coursework necessary to enter this upper division major, note the following recommendations and/or course requirements:

Required Courses: Computer Programming in assembly language, COBOL, and in some other high level language.
Students entering without having met this lower division requirement (and without an equivalent background) are required to take some or all of the following courses as nonmajor electives:

Introduction to Computer Programming: COP 3112
Assembly Language Programming: COP 3402
COBOL and Data Processing: COP 3122

## Recommended Courses: College Algebra

Students who have not taken College Algebra should elect MAC 3132 (Pre-calculus Mathematics) as their first mathematics course at FIU.
UPPER DIVISION PREPARATION:
Major:
Quarter Hours
Required Courses:
MAC 3233 Calculus For Management and Social Sciences
5
or
MAC 3411 \& MAC 3412 Calculus I \& II ..... 10
STA 3161 Statistics for Management and Social Sciences ..... 5
or
STA 3163 Introduction to Statistical Analysis I5
MAD 3104 Discrete Mathematics ..... 5
COP 3515 Programming Methodology ..... 5
COP 3530 Data Structures ..... 5
CDA 4101 Structured Computer Organization ..... 5
COP 4610 Operating Systems Principles ..... 5
Plus one course from each of the following two lists:
List (1)
MAD 3305 Graph Theory
MAD 3401 Numerical AnalysisMHF 4302 Mathematical Logic
COT 4320 Theory of Computations
List (2)
CDA 3110 Computer Hardware Fundamentals
CDA4163 Data Communications
CDA 4171 Minicomputer Architecture and Applications
CAP 4721 Computer Graphics
COP 5540 Data Base and File Organization
COP 5640 Programming Systems
Electives:45

Remarks: The student must consult his advisor at FIU concerning those Mathematical Sciences courses which can be used to satisfy the requirements for a Computer Science Major.
Minor:

|  | Quarter Hours |
| :---: | :---: |
| Required Courses: | 25 |
| COP 3112;* COP 3402;* or COP 3403: Introduction to Computers I \& II | 10 |
| COP 3515 Programming Methodology and | 5 |
| COP 3122 Data Processing \& COBOL | 5 |
| Elective: One other course in Computer Science at the 3000 or |  |
| 4000 level acceptable for the major program | 5 |

*This course may be replaced by equivalent lower division coursework. However, a minimum of 20 quarter hours must be taken in computer science at the University, and must be selected from those courses approved for the computer science major program.
Remarks: No Mathematical Sciences courses can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a Mathematical Sciences course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

## MATHEMATICAL SCIENCES

LOCATION: Tamiami Campus Only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: Calculus including mutivariable calculus; introductory courses in computer programming and assembly language; linear algebra; differential equations.
Remarks: If an entering major student has not met a lower division requirement, the equivalent course must be taken at the University, and will be counted as a non-major elec-
tive. The equivalent courses are MAC 3411, MAC 3412, MAC 3413 (calculus); COP 3112 ,COP 3402 (introductory programming and assembly language); MAS 3103 (LinearAlgebra): and MAP 3302 (Differential Equations).
UPPER DIVISION PROGRAM:
Major:
Quarter Hours
Required Courses:
STA 3163-STA 3164 Introduction to Statistical Analysis ..... 1045
MAP 3103-MAP 3104 Mathematical Models and Applications ..... 10
MAD 3401 Numerical Analysis ..... 5
MAD 3104 Discrete Mathematics ..... 5
COP 3530 Data Structures ..... 5
MAP 4401-MAP 4402 Mathematical Methods in Physical Sciences ..... 10orMAA 4211-MAA 4212 Advanced Calculus 10Electives:45
Minor:Required Courses:35
MAC 3411, MAC 3412, MAC 3413 Calculus I, II, \& III ..... 15(Unless taken previousiy); and20 credit hours of Mathematical Sciences Courses thathave been approved for the Mathematics Major program20

Remarks: No Mathematical Sciences courses can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a Mathematical Science course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

## MATHEMATICAL SCIENCES

Campus Location: Tamiami Campus Only
DEGREE: Master of Science in Mathematical Sciences
The Master's program in Mathematical Sciences consists of a total of 45 quarter hours of coursework. All students will be required to take the following:

|  | Quarter Hours |  |
| :--- | :--- | :---: |
| MAP 5117 | Mathematical and Statistical Modeling | 5 |
| COP 5540 | Data Base and File Organization | 5 |
| STA 5206 | Design of Experiments | 5 |
| STA 5606 | Mathematical Techniques of Operations Research | 5 |
| MAP 6127 | Simulation and Modeling | 5 |

An additional 15 hours must be chosen from approved courses in at least two of the three areas of Computer Science, Mathematics and Statistics. For the final 5 hours, the student will be required to apply the techniques developed in his or her program of studies to the solution of a practical problem. The 40 hours of coursework must be completed with a " $B$ " average or higher and a grade of " C " or higher in each course. A grade of credit (CR) is required for the research project.

Prerequisites for the program consist of the following FIU courses (or their equivalents):
COP 3112 Introduction to Programming I (Fortran)
COP 3402 Introduction to Programming II (Assembly Language)
COP 3530 Data Structures
MAC 3411 \& MAC 3412 \& MAC 3413 Calculus and Multivariable Calculus
MAS 3103 Linear Algebra

STA 3321 \& STA 3322 Mathematical Statistics; or
STA 3163 \& STA 3164 Introduction to Statistical Analysis
In addition to these prerequisites a student must hold a Bachelor's degree from an accredited university or college; must have received a " B " average or better in all coursework taken as an upper division student for the Bachelor's degree, or achieved a combined score of 1000 or higher on the Graduate Record Exam (including at least 650 on the quantitative portion); and must have approval of the departmental Graduate Committee.

## COURSE DESCRIPTIONS

## dEFINITION OF PREFIXES

CAP-Computer Applications: CDA-Computer Design/Architecture; CIS-Computer Information Systems: COC-Computer Concepts; COP-Computer Programming; COT-Computing Theory; HES-Applied Health; MAA-Mathematics, Analysis; MAC-Mathematics, Calculus and Pre-Calculus; MAD-Mathematics, Discrete; MAE-Mathematics Education; MAP-Mathematics, Applied; MAS-Mathematics, Algebraic Structures; MAT-Mathematics, General; MGF-Mathematics, General and Finite; MHF-Mathematics, History \& Foundations; MTG-Mathematics, Topology and Geometry; STA-Statistics.

## CAP 4721 COMPUTER GRAPHICS

(5) (F-S)

The principles and techniques of interactive computer graphics. Characteristics of graphical devices; representation and manipulation of graphical data, light pens, and other graphical input devices; data structures for interactive graphics; graphical languages; applications of computer graphics. Prerequisites: MAC 3233. COP 3530 and CDA 4101
CDA 3040 /ETE 3650 COMPUTER HARDWARE FUNDAMENTALS
(5) (W-SS)

This course concentrates on two major areas. The first considers computer number systems, logic gates and Boolean algebra. The second treats the arithmetic element, computer memories, input-output, and computer organization. Emphasis is placed on the latter topics. Prerequisite: MAD 3104.
CDA 4101 STRUCTURED COMPUTER ORGANIZATION
(5) (F-W-S)

This course investigates the analysis of the levels of organization of computer systems, including the conventional, microprogramming and operating systems levels. A number of major computer systems are analyzed. Prerequisite: COP 3402, or equivalent.

## CDA 4163 DATA COMMUNICATIONS

(5) (F)

Study of communications-based systems, common carrier facilities, tariffs, and related equipment. Analysis and design of communications networks utilizing various techniques. Uses of communications for data collection, remote computing, message switching. Prerequisite: CDA 4101.
CDA 4171 MINICOMPUTER ARCHITECTURE AND APPLICATIONS
(5) (W-SS)

An introduction to minicomputers, in which students will have direct access to a general purpose minicomputer system. Study of the architecture of a particular minicomputer (including hands-on experience) followed by a comparison study of other minicomputer systems. Selected minicomputer applications in business, industry and science. Prerequisites: CDA 4101.
CIS 3905 INDEPENDENT STUDY
(VAR) (F-W-S-SS)
Individual conferences, assigned readings, and reports on independent investigations.
CIS 3932 SPECIAL TOPICS
(VAR) (F-W-S-SS)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.
CIS 4905 INDEPENDENT STUDY
(VAR) (F-W-S-SS)
Individual conferences, assigned readings, and reports on independent investigations.
CIS 4932 SPECIAL TOPICS
(VAR) (F-W-S-SS)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered
CIS 5908 INDEPENDENT STUDY
(VAR) (F-W-S-SS)
Individual conferences, assigned readings, and reports on independent investigations.
CIS 5934 SPECIAL TOPICS
(VAR) (F-W-S-SS)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.
COC 3300 INTRODUCTION TO COMPUTERS AND COMPUTER APPLICATIONS
(5) (W-SS)

A survey of computers and their applications: hardware, software, computer systems operation, advanced computer systems, acquiring and using computer power, systems analysis, computer impact on society. Not acceptable for credit to mathematical science majors (mathematics, computer science, statistics).
COC 3400 COMPUTERS AND SOCIETY
A course for the citizen who is interested in the effects of computers upon our society. The major focus will be upon social, political and ethical considerations: what computers are and how they work; applications, such as data banks, government uses, simulation; considerations such as privacy and the police state, the cashless society, computers and business, computers and the quality of life, systems analysis and the planned society. The course is oriented toward the non-scientist and requires no background in mathematics. computer science, or social science. As part of the course, students will learn to write and run a simple computer program. charting: programming; testing and debugging. Numerical and non-numerical techniques. The syntax and semantics ol FORTRAN IV
COP 3120 INTRODUCTION TO COBOL PROGRAMMING
Introduction to the basic notions of computer programming, with emphasis on data processing applications. The syntax and semantics of basic COBOL are examined. Concepts in file organization and techniques for processing are introduced. Not acceptable for credit to computer science majors.
COP 3122 DATA PROCESSING AND COBOL
(5) (F-S)

A second course in programming, oriented toward data processing applications. Various techniques for organizing and processing files: sequential random-access, indexed and inverted files. File sorting and maintenance. Program documentation. Instruction in the COBOL programming language. Applications of computers and data processing in business. Prerequisite: COP 3170 or COP 3112.

## COP 3170 INTRODUCTION TO COMPUTER PROGRAMMING

(3) (F-W-S-SS)

An introduction to the BASIC computer language and to the use of the interactive and batch facilities of the computer. Not acceptable for credit to computer science majors.
COP 3172 BASIC PROGRAMMING FOR BUSINESS
(5) (F-W-S-SS)

Introduction to the BASIC computer language with emphasis on business data processing applications. Using the interactive and batch facilities of the machine, concepts on file organization and techniques for processing are examined. Prerequisites: None. Not acceptable for credit to computer science majors.
COP 3402 INTRODUCTION TO COMPUTERS II
(5) (W-S)

Principles and techniques of digital computers, with emphasis on machine language and assembly language programming. Internal representation of numeric and non-numeric information; registers, indexing and computer structure; arithmetic, logical and input-output instructions; fixed and floating arithmetic. Prerequisite: COP 3112 or equivalent.
COP 3404 COMPUTER ASSEMBLY LANGUAGE
(2) (F-S)

Assembly language for the UNIVAC 1100 series: instruction set, register usage, internal data representation, assembler pseudo-operations, PROC's. Basic elements of EXEC-8. Prerequisites: Course in assembly language for a computer other than UNIVAC 1106; demonstration of adequate knowledge of assembly language for a computer other than UNIVAC 1108.

## COP 3515 PROGRAMMING METHODOLOGY

(5) (F-S)

This course covers BNF, structuring of programs, program documentation, debugging and testing, top down design, and a project for practical experience in these techniques. Programming in a high level language. Prerequisite: COP 3402 or equivalent.

## COP 3530 DATA STRUCTURES

(5) (W-S-SS)

Basic concepts of data organization and associated techniques. Arrays, stacks, singly and multiply linked lists, binary and n-ary trees, graphs. Both internal and external storage structures. Accessing, searching and sorting. Recursive and non-recursive processing. Dynamic allocation and garbage collection. Prerequisite: MAD 3104. Corequisite: COP 3402.

## COP 4610 OPERATING SYSTEMS PRINCIPLES

(5) (W-S-SS)

A study of the basic principles of modern multi-programming and time-sharing systems. Interrupts and data channels, multiprocessor system, memory management, virtual memory, segmentation, process communication, deadlock and interlock handling. Prerequisites COP 3530 and CDA 4101.

## COP 5540 DATA BASE AND FILE ORGANIZATION

(5) (W-S)

This course deals with the need for formal data organization; system requirements; effects of storage: devices; file attributes; file organization; search strategies; privacy and security. Prerequisites: COP 3530 and CDA 4101
COP 5640 PROGRAMMING SYSTEMS
(5) (S or SS)

Assemblers; loaders; MACRO systems; basic techniques of compilation; self-compilers; syntax encoding and recognition; code generation and optimization. Prerequisites: COP 3515, MAD 3104 and COP 3530.

## COT 4320 THEORY OF COMPUTATIONS

An introduction to abstract machine theory, combinatorial systems, and computable functions. Topics include: linite-state machines, regular sets, Turing machines, the halting problem, phrase-structure grammars and languages, and Post's correspondence problem. Emphasis is on surveying basic topics and developing an intuitive understanding of the theory of computation. Prerequisite: MAD 3104.

HCA 4711/HES 4723 QUANTITATIVE ANALYSIS FOR HEALTH CARE
(5) (F-S)

This course covers various techniques of health data analysis. Topics covered are chosen for and related to their practical and potential applications in the health area.
MAA 4211-MAA 4212 ADVANCED CALCULUS I \& II
(5-5) (W-S)
An intensive study of the basic ideas of calculus. Topics include the following: real number sequences, series, power series expansion, continuity, differentiability, and integration of functions of several varıables. Prerequisites: MAC 3413 and MAS 3103.

## MAA 4402 COMPLEX VARIABLES

(5) (SS)

An introduction to complex variables, beginning with the algebra and geometry of the complex number systern. Topics include: complex functions; analytic functions; Cauchy's theorem and its consequences; Taylor and Laurent series; residue calculus; evaluation of real integrals and summation of series; conformal mapping. Prerequisite: MAC 3413.
MAC 3132 PRE-CALCULUS MATHEMATICS
(5) (F-W-S-SS)

Topics to be covered include: a review of exponents and logarithms; trigonometry; analytic geometry; complex numbers. Prerequisite: Two years of high school algebra

An elementary introduction to the basic notions of calculus that are used to study problems in the management and social sciences. Specific topics include: differential calculus and its application to optimization problems; integral calculus with area and probability applications. Prerequisite: MAC 3132, or working knowledge of algebra.

## MAC 3411-MAC 3412 CALCULUS I \& II

(5-5) (F-W-S-SS)
An introduction to basic concepts, computations, and applications in calculus. The first course deals with basic concepts, techniques and applications of the derivative, and an introduction to the integral. The second course deals with integratoon techniques and applications of the integral, an introduction to multivariable calculus, infinite series, and Taylor series. Prerequisite: Trigonometry or MAC 3132.
MAC 3413 MULTIVARIABLE CALCULUS
(5) (F-S-SS)

This course deals with the differential and integral calculus of real valued multivariable functions. The topics include: directional and partial derivatives, gradients, and their applications; differential calculus of vector valued functions; multiple, iterated, line, and surface integrals. Prerequisite: MAC 3412 (or equivalent).
MAD 3104 DISCRETE MATHEMATICS
(5) (F-W-S)

An introduction to abstract mathematical structures, with special emphasis on theories and methods which are relevant to the study of computer science. Topics include: introduction to formal systems and techniques of proof; combinatorial vs. relational structures; groups and graphs; Boolean algebras; abstract languages and machines. Prerequisite: COP 3210.
MAD 3305 GRAPH THEORY
An introduction to the study of graphs. Topics include the following: paths and circuits, connectedness, trees, shortest paths, networks, planar graphs, the coloring of graphs and directed graphs. Applications of graphs to computer science will be discussed. Prerequisite: COP 3112.
MAD 3401/CNM 3100 NUMERICAL ANALYSIS
(5) (W-SS)

Basic ideas and techniques of numerical analysis. Topics include: finite differences, interpolation, solution of equations, numerical integration and differentiation, applications, introduction to applied linear algebra. This course will make extensive laboratory use of the computer facility. Prerequisites: COP 3170, or COP 3112 and MAC 3412 , or MAC 3233.
MAE 4810-MAE 4811 FOUNDATIONS OF MATHEMATICS I \& II
(5-5) (F-W)
An integrated course designed for teachers of elementary and early junior high students. Emphasis will be placed on inductive and rudimentary deductive approaches to number systems, algebra, geometry, probability, statistics, and mathematical systems. The relationship between these fields and their applications will be stressed. Intuitive aspects of synthetic, analytic and transformation geometry will serve to relate geometry, algebra and mathematical systems. Prerequisite: None.
MAP 3103-MAP 3104 MATHEMATICAL MODELS AND APPLICATIONS I \& II
(5-5) (W-S)
A course to provide an understanding of the use of mathematical models in the description of the real world. In addition to considering basic principles in philosophy of formal model building, specific models will be considered, such as Markov Chain models, models for linear optimization, models involving stochastic processes, graphs and models, models for growth processes, and ecological models. Evaluation of models will also be discussed. Prerequisites: MAS 3103 and MAC 3413, or MAP 3302.
MAP 3302 DIFFERENTIAL EQUATIONS
(5) (W-S)

An introduction to differential equations and their applications, based upon a knowledge of the calculus.
Topics to include: initial value problems of the first order, numerical solutions, systems of differential equations, linear differential equations, Laplace transforms, series solutions. Prerequisite: MAC 3412. Corequisite: COP 3170, or COP 3112.
MAP 4401-MAP 4402 MATHEMATICAL METHODS IN PHYSICAL SCIENCES I \& II
A study of those topics in mathematics most often applied in the physical sciences. A prerequisite knowledge of ordinary differential equations is required. Topics to be discussed include the following: solutions to ordinary differential equations about singular points; Fourier Analysis; Sturm-Liouville Problems; Bessel Functions; Legendre Polynomials; boundary value problems; Laplace equations; applications to problems in the physical sciences. Prerequisite: MAP 3302.

MAP 5117 MATHEMATICAL AND STATISTICAL MODELING
Topics to be covered include: regression models, forecasting and time series models, probability and various statistical models. Computer solutions of these models will be included. Prerequisites: MAC 3413, COP 3402, MAS 3103; and STA 3322 or STA 3164

## MAP 6127 SIMULATION AND MODELING

Two areas are covered in this course: advanced queueing models and simulation techniques. The relationships between these two areas, applications, and simulation languages will be among the topics covered. Prerequisite: STA 5606.
MAS 3103 LINEAR ALGEBRA
(5) (F-S)

An introduction to the topics in linear algebra most often used in applications. Topics include: matrices and their applications; simultaneous linear equations and elementary operations; linear dependence; vector spaces; rank and inverses; inner products and "best" approximations; numerical solutions of simultaneous linear equations: eigenvalues and eigenvectors; iterative methods for calculating eigenvalues; and systems of linear equations. Prerequisite: MAC 3412
MAS 4301-MAS 4302 ALGEBRAIC STRUCTURES I \& II
(5-5) (F-W)
A course based on knowledge of calculus and linear algebra, and concerned with the fundamental concepts of algebraic structures. Topics include: elementary number theory, groups, rings. Concrete examples are used to introduce concepts of modern algebra. Special emphasis is placed on the ring of integers, congruences, polynomial domains and permutation groups. Prerequisite: MAS 3103 or MAD 3104.

This course takes up topics in number theory. Topics to be discussed selected from the following: congruences. Diophantine Equations, p-adic numbers, algebraic number theory, class numbers, distribution of primes. continued tractions, and number theoretical explorations using the computer.
MAT 3905 INDEPENDENT STUDY
(VAR) (F-W-S-SS)
Individual conferences, assigned readings, and reports on independent investigations.
MAT 3930 SPECIAL TOPICS (VAR) (F-W-S-SS)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.
MAT 4905 INDEPENDENT STUDY
(VAR) (F-W-S-SS)
Individual conferences, assigned readings, and reports on independent investigations.

## MAT 4930 SPECIAL TOPICS (VAR) (F-W-S-SS)

A course designed to give groups of students an opportunity to pursue special studies not otherwise ollered.
MAT 4943 MATHEMATICAL SCIENCES INTERNSHIP
(VAR) (F-W-S-SS)
A special program to encourage students to get guided on-the-job experience in computer sciences, statistics, or mathematics in an industrial enterprise, governmental agency or other organization. Requirements: minimum grade of B or higher in all courses in the major area, and approval by Departmental internship Committee. Application is required at least one term in advance of registration for this course.

## MAT 5907 INDEPENDENT STUDY

(VAR) (F-W-S-SS)
Individual conferences, assigned reading, and reports on independent investigations.
MGF 3113 THE SIGNIFICANCE OF MATHEMATICS
(5) (W)

A course tor non-science majors, directed toward students with little or no assumed background in mathematics. The objective is to convince the student that mathematics is fun, interesting and useful. Topics may include: logical reasoning, unsolved problems of arithmetic, probability and statistics, geometry, topology, computers.
MHF 4302 MATHEMATICAL LOGIC
(5) (W)

A study of formal logical systems and their applications to the foundations of mathematics. Topics to be selected from the following: definition of mathematical proofs; set theory; analysis formalized with the predicate calculus; theorems of Godel and Church; recursive function theory; and idealized computers.
MTG 3212 GEOMETRY
(5) (W)

A study of the basic structure of Euclidean geometry together with topics from advanced Euclidean geometry and non-Euclidean geometry.
MTG 4302 TOPOLOGY
An introductory course in topology requiring a prerequisite knowledge of the calculus. Topics to be discussed will be selected from the following: topological spaces, metric spaces, continuity, completeness, compactness, separation axioms, products spaces, subspaces, convergence, and homotopy theory. Prerequisite: MAC 3414.

## STA 3013 STATISTICS FOR HEALTH AND SOCIAL SCIENCES

(5) (F-W-S-SS)

This is an elementary course in statistics, covering graphical and numerical condensation of data as well as the most basic parametric and non-parametric methods. Emphasis is placed on the interpretation of statistical results, rather than on ways to analyze experimental data.
STA 3122-STA 3123 INTRODUCTION TO STATISTICS I \& II
(5-3) (F-W-S-SS)
A course in descriptive and inferential statistics. Topics include: empirical and theoretical probability distributions; point and interval estimation; hypothesis testing; analysis of variance, regression, correlation, and basic non-parametric tests.
STA 3132-STA 3133/QMB 3150 QUANTITATIVE METHODS FOR ADMINISTRATION I \& II
(5-5) (F-W-S-SS)
The use of statistical tools in management. Starting with an introduction to probability, the course provides an introduction to a wide range of statistical techniques used in management sciences. It includes descriptive statistics, statistical inference, testing of hypotheses, regression and correlation analyses, and special topics such as construction of index numbers and time series analysis. The use of quantitative tools in management. Statistical methods, testing, and other quantitative applications to management are drawn together to provide tools for management efficiency.
STA 3161 STATISTICS FOR MANAGEMENT AND SOCIAL SCIENCES
(5) (W-SS)

Introduction to the basic notions of probability and statistics that are used to study problems in management and social sciences. Topics include: basic probability, random variables, sampling, estimation, hypothesis testing. Prerequisite: A course in college algebra or calculus.
STA 3163-STA 3164 INTRODUCTION TO STATISTICAL ANALYSIS I \& II
(5-5) (F-W)
This course presents a wide range of statistical tools which are useful in the analysis of data. Stress is placed on understanding where, when, and how these techniques are used. Computer and laboratory work is an integral part of the course. It is assumed that the student has had an introductory course in slatistics or has had some exposure to calculus. Specific topics include: use of normal distribution; tests of means, variances and proportions; the analysis of variance and covariance (including orthogonal contrasts, components of variance models and analysis of experiments); regression; correlation; probability plotting: sequential analysis; non-parametric statistics and transformation techniques. Prerequisite: First course in calculus or lirst course in statistics
STA 3182 STATISTICAL MODELS IN SCIENCE AND BUSINESS
This is a specialized course in the use of statistical models to represent physical and social phenomena. The emphasis is on providing tools which will allow a researcher or analyst to gain some insight into phenomena being studied. An introductory knowledge of probability theory and random variables is
assumed. Specilic topics include: introduction to discrete and continuous probability distributions, translormation of variables, approximation of data by empirical distributions, central limit theorem, propagation of moments, Monte Carlo simulation, probability plotting, and testing distributional assumptions. Prerequisites: MAC 3413, and lirst course in statistics.
STA 3321-STA 3322 INTRODUCTION TO MATHEMATICAL STATISTICS I \& II
(5-5) (W-S)
This course presents an introduction to the mathematics underlying the concepts of statistical analysis. It is based on a solid grounding in probability theory, and requires a knowledge of single and multivariable calculus. Specific topics include the following: basic probability concepts, random variables, probability densities, expectations, moment generating functions, sampling distributions, decision theory, estimation, hypothesis testing (parametric and non-parametric), regression, analysis of variance, and design of experiments. Prerequisite: MAC 3413.

## STA 3905 INDEPENDENT STUDY

(VAR) (F-W-S-SS)
Individual conlerences, assigned readings, and reports on independent investigations.

## STA 3930 SPECIAL TOPICS <br> (VAR) (F-W-S-SS)

A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

## STA 4502 PRACTICAL NONPARAMETRIC STATISTICS

(5) ( $W$ or $S$ )

This course deals primarily with tests of hypotheses for situations where standard parametric procedures (t-test, F-test, etc.) cannot be applied. Topics include binomial, multinomial and Poisson tests, permutation test, sign test, Mann-Whitney $U$ test, Wilcoxon signed rank test, rank correlation, contingency chisquare, Kruskal-Wallis one-way ANOVA by ranks, Friedman test and other non parametric tests. Prerequisite: First course in statistics.
STA 4603-STA 4604 MATHEMATICAL TECHNIQUES OF OPERATIONS RESEARCH I \& I(5-5) (S, SS) An introduction to those topics in mathematics associated with studies in operations research. Topics include the following: linear programming and related topics, dynamic programming, queuing theory, computer simulation, network analysis, inventory theory, decision theory, integer programming. Prerequisites: MAS 3103 and STA 3161 or STA 3322.

## STA 4664 STATISTICAL QUALITY CONTROL

(5) (SS)

This course presents the simple but powerful statistical techniques employed by industry to improve product quality and to reduce the cost of scrap. The course includes the use and construction of control charts (means, percentages, number defectives, ranges) and acceptance sampling plans (single and double). Standard sampling techniques such as MIL STD plans will be reviewed.
STA 4905 INDEPENDENT STUDY
(VAR) (F,W,S,SS)
Individual conferences, assigned readings, and reports on independent investigations.

## STA 5126 DESIGN OF EXPERIMENTS IN PSYCHOLOGICAL RESEARCH

(4) (F)

Reviews the analysis of variance, introduces the student to randomized and blocking designs, factorial designs, fractional factorial, main effects and other plans as they are used in psychological research. Main emphasis is on the rationale behind several designs and the techniques for applying these to psychological experiements. Prerequisites: STA 3122 and STA 3123 or their equivalents.

## STA 5206 DESIGN OF EXPERIMENTS

(5) (F)

This is an applied course dealing with the design and analysis of experiments employed in scientific and industrial research. A knowledge of the basic fundamentals of hypothesis testing and analysis of variance is assumed. Topics include: multiple comparison tests, completely randomized design, randomized blocks, latin quare and related designs, nested and factorial experiments. Prerequisite: STA 3322 , or STA 3164.

STA 5207 TOPICS IN DESIGN OF EXPERIMENTS
(5) $(W, S)$

This applied course in design of experiments covers topics such as split-plot design, confounding, fractional replication, incomplete block designs, and response surface designs. Prerequisite: STA 5206.

## STA 5236-STA 5237 REGRESSION ANALYSIS I \& II

A comprehensive review of the role of linear models in statistics. Extensive use is made of matrix notation, and a prior course in linear algebra is imperative. The fundamental theorems underlying regression analysis and the analysis of variance will be covered. Such topics as the Gauss-Markov Theorem, generalized least squares, and estimation and testing of hypotheses will be covered. Prerequisites: STA 3322 and MAS 3103.

## STA 5446-STA 5447 PROBABILITY THEORY I \& II

(5-5) (S, SS)
This course is designed to acquaint the student with the basic fundamentals of probability theory. It reviews the basic foundations of probability theory, covering such topics as discrete probability spaces, random walk, Markov Chains (transition matrix and ergodic properties), strong laws of probability, convergence theorems, and law of iterated logarithm. Prerequisite: MAC 3413.
STA 5606 MATHEMATICAL TECHNIQUES OF OPERATIONS RESEARCH
(5) (W)

This course surveys the mathematical methods used in operations research. Topics will be chosen from linear programming, dynamic programming, integer programming, network analysis, classical optimization techniques, and applications such as inventory theory. Prerequisite: MAP 5117. Corequisite: COP 3530.

## STA 5676 RELIABILITY ENGINEERING I

(5) (SS)

The course material is designed to give the student a basic understanding of the statistical and mathematical techniques which are used in engineering reliability analysis. A review will be made of the basic fundamental statistical techniques required. Subjects covered include: distributions used in reliability (exponential, binomial, extreme value, etc.); tests of hypotheses of failure rates; prediction of component reliability; system reliability prediction; and reliability apportionment. Prerequisite: STA 3322.

# MODERN LANGUAGE MAJORS 

Frances Aid, Associate Professor and Chairperson<br>James Crosby, Professor Yvonne Guers-Villate, Professor<br>Ramon Mendoza, Professor (North Miami Campus)

Florence Yudin, Professor Frederick Bouma, Associate Professor<br>R. Reinaldo Sanchez, Associate Professor<br>Maida Watson Espener, Assistant Professor<br>Marcelle Welch, Assistant Professor<br>Gene Leroy, Instructor

Campus Location: Tamiami Campus only

DEGREE: Bachelor of Arts

LOWER DIVISION PREPARATION:

Required Courses: four semesters of elementary and intermediate foreign language or
equivalent proficiency.

UPPER DIVISION PROGRAM:

|  | Quarter Hours |
| :--- | ---: |
| Required Courses:* | 45 |
| Foreign language | 45 |
| Electives:* |  |

*Students in the Teacher Preparation Program carry two majors: Modern Language and Modern Language Education. They must request admission to both programs. (Students interested in teacher certification see note on page 242.)
REQUIREMENTS FOR ALL MODERN LANGUAGE MAJORS: All majors must have a designated faculty advisor and all are required to take 45 credits in the department of Modern Languages.
REQUIREMENTS FOR SPANISH MAJORS: There is no fixed sequence of courses required (e.g. SPN 3420, SPN 3421, SPN 3422); but a major in Spanish is expected to demonstrate proficiency in the target language at the level of SPN 3420 or SPN 3421 before attempting other advanced courses. He must take a minimum of 10 credits in linguistics - of which 5 should be History of the Language or Introduction to Linguistics - and a minimum of 10 credits in literature.
REQUIREMENTS FOR FRENCH MAJORS: The requirements for a major in French are: 3 or 4 literature courses; 1 civilization course; 1 linguistics course. The remaining credits should be taken in language courses, such as FRE 3201, FRE 3420, FRE 3421, FRE 3780, FRT 3800, FRT 3810 - unless the student can demonstrate proficiency in these areas. A student is also generally expected to take an introductory course to literature such as FRW 3820 betore registering for upper level literature courses.

REQUIREMENTS FOR OTHER LANGUAGE MAJORS: A major in a language other than Spanish or French may take only 30 credits in the major target language, but completion of at least three quarters of a second foreign language is recommended. There is no fixed sequence of courses required and a student may enroll in any course offered for majors, provided he or she meets the course prerequisites.

## BASIC LANGUAGE INSTRUCTION

## Campus Locations: Tamiami and North Miami Campuses

The Department of Modern Languages offers five-quarter sequences of instruction in basic French, German, Hebrew, Italian, Portuguese and Spanish.

The courses in basic language instruction are designed primarily for persons wishing to acquire basic conversational ability in a foreign language; but they provide raining in all four language skills: listening, speaking, reading, and writing. Students are advised to consult the Departmental course listing for specific sections of French, German, Hebrew, Italian, Portuguese, and Spanish. Contingent upon demand, the Department of Modern Languages will offer courses in other foreign languages.

## COURSE DESCRIPTIONS

## definition of prefixes

ESL-English as a Second Language; FOL-Foreign Languages; FOT-Foreign Languages in Translation; FOW-Foreign Languages, Comparative Literature; FRE-French Language: FRT-French Literature in Translation; FRW-French Literature (Writings); GER-German Language; GET-German Literature in Translation; HEB-Hebrew; HUM-Humanities; ITA-Italian Language; ITT-Italian Literature in Translation; LIN-Linguistics: POR -Portuguese Language; POW-Portuguese Literature (Writings); PRT—Portuguese in Translation; SPN-Spanish Language; SPT-Spanish Literature in Translation; SPW-Spanish Literature (Writings).

## COOPERATIVE EDUCATION

HUM 3949 COOPERATIVE EDUCATION IN HUMANITIES
A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.
HUM 4949 COOPERATIVE EDUCATION IN HUMANITIES
A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooeprative Education Program and major department.

## ENGLISH AS A SECOND LANGUAGE

## FOREIGN LANGUAGE: GENERAL

FOL 3000 ELEMENTARY FOREIGN LANGUAGE CONVERSATION
Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. For languages not often taught. This course is not part of a series. No prerequisites.

## FOL 3732 ROMANCE LINGUISTICS

The common and distinctive romance features. Survey of linguistic geography and internal/external influences.
FOL 3905 INDEPENDENT STUDY
Project, field experience, readings, or apprenticeship.
FOL 3930 SPECIAL TOPICS etc.). influences.

## FOL 5906 INDEPENDENT STUDY

interpretation.and teacher.FOT 4801 PROFESSIONAL TRANSLATION(5)
Techniques and resources for professional translation. Prerequisite: FOT 3800.

Topic and approach to be determined by students and instructor. (Approval of the Department required.)

## FRENCH

Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
FRE 3270 FOREIGN STUDY
Intermediate level. One quarter full-time credit for foreign residence and sludy. Individual cases will be evaluated lor approval.
FRE 3415 COMMUNICATION ARTS
Oral interpretation and dramatic reading. Original and non-original texis will be the content of the course.
Study of shared modes of experience and their individual linguistic expression in an acquired language.
FRE 3420 REVIEW GRAMMAR/WRITING I
Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the largel language.

## FRE 3421 REVIEW GRAMMAR/WRITING II

Examination of grammatical theory; discussion of the modern essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and composition.

## FRE 3500 CIVILIZATION I

Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a sociely, its ideas and its values.
FRE 3700 INTRODUCTION TO GENERAL LINGUISTICS
Examination and synthesis of the concepts and perspectives of major contributions to language theory.
FRE 3705 APPLIED LINGUISTICS
Examination of available linguistic materials for self-instruction. Problem solving in syntax and phonetics, through the application of modern/traditional methods.
FRE 3780 PHONETICS
The application of phonetic theory and practice for speech refinement. Sludy of sound patterns in communication and creative activity.

## FRE 3820 DIALECTOLOGY

Detinition and analysis. Problem-solving in dialect classification.
FRE 3840 HISTORY OF THE LANGUAGE
The internal and external history of language development. Examination of model texts from key periods of evolution.
FRE 4013 LANGUAGE SKILLS FOR PROFESSIONAL PERSONNEL
(VAR)
The course is geared to the special linguistic needs of community groups (medical, business, technical, elc.).
FRE 4470 FOREIGN STUDY: ADVANCED LANGUAGE/LITERATURE
Full-quarter credit for foreign residence and study/work. (Approval of Department required.)

## FRE 4501 CIVILIZATION II

Open to any student who understands the target language. The making of a modern culture. The ideological, political and economic background of contemporary culture.
FRE 4562 STUDIES IN BILINGUALISM
Readings and analysis of bilingual programs and binational goals.
FRE 4791 CONTRASTIVE PHONOLOGY
Contrasts in the sound systems of English and French.
FRE 4800 CONTRASTIVE MORPHOLOGY
Contrasts in the morphology and syntax of English and French.
FRE 4935 SENIOR SEMINAR
Topic and approach to be determined by students and instructor.
FRE 5060 LANGUAGE FOR READING KNOWLEDGE
Designed primarily for graduate students who wish to attain proficiency for M.A. and Ph.D. requirements. Open to any student who has no prior knowledge of the language.
FRE 5061 LANGUAGE FOR READING KNOWLEDGE
Emphasis on translation of materials from the student's field of specialization. Prerequisite: FRE 5060, or the equivalent.

## FRE 5416 COMMUNICATION ARTS

Readings and analysis of bi-lingual programs and binational goals.

## FRT 4801 PROFESSIONAL TRANSLATION

Techniques and resources for professional translation. Prerequisite: FRT 3810.
FRT 5118 LITERATURE IN TRANSLATION
Masterpieces of world literature. Open to students who are proficient in more than one language.
FRT 5802 TRANSLATION ARTS
Techniques of professional translation. Prerequisite: FRT 4801.
FRW 3520 PROSE AND SOCIETY
The dynamics of participation and alienation between prose writers and their environment.
FRW 3580 INTELLECTUAL HISTORY
The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.
FRW 3582 LITERATURE OF REFORM
The consciousness of change in verbal art.
FRW 3584 LITERATURE OF REPRESSION
The consciousness of constraints, their adoption and/or rejection in verbal art.
FRW 3820 STYLISTICS/EXPLICATION DE TEXTE
Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.
FRW 3905 INDEPENDENT STUDY
Projeci, field experience, readings, or apprenticeship.
FRW 3930 SPECIAL TOPICS
Readings and discussion of literary/linguistic topics to be determined by students and instructor.
FRW 4152 EUROPEAN LITERATURE IN TRANSLATION
For students proficient in more than one foreign language. Content and focus to be determined by students and instructor. (Conducted in French.)
FRW 4390 GENRE STUDIES
Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).
FRW 4590 CREATIVE MODES
Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism.
The peculiar/common features of expressive media
FRW 4810 PROBLEMS IN READING AND INTERPRETATION
The identification and appreciation of techniques for sensitive reading and discussion of literary texts.
FRW 4905 INDEPENDENT STUDY
(VAR)
Project, field experience, readings, or research.
FRW 4930 SPECIAL TOPICS
Independent readings, research, or project.
FRW 5150 COMPARATIVE STUDIES
FRW 5395 GENRE STUDIES
Examinatıon of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).
FRW 5934 SPECIAL TOPICS IN LANGUAGE/LITERATURE
Content and objectives to be determined by student and instructor.
FRW 5938 GRADUATE SEMINAR
Topic and approach to be determined by students and instructor. (Approval of the Department required.)

## GERMAN

GER 3000 ELEMENTARY GERMAN CONVERSATION
(VAR)
Emphasis on oral skills, contemporary language and culture. Content oriented to studente with specific professional or leisure interests. This course is not part ol a series. No prerequisites.
GER 3120 BEGINNING GERMAN INSTRUCTION I
Provides training in the acquisition and application of basic language skills.
GER 3121 BEGINNING GERMAN INSTRUCTION II
Provides training in the acquisition and application of basic language skills.

Masterpieces in German literature in English. Comparative use of the original text. Discussion and interpretation.

## HEBREW

HEB 3000 ELEMENTARY HEWBREW CONVERSATION
(VAR)
Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific prolessional or leisure interests. This course is not part of a series. No prerequisites.
HEB 3110 BEGINNING HEBREW INSTRUCTION I
Provides training in the acquisition and application of basic language skills.
HEB 3111 BEGINNING HEBREW INSTRUCTION II
Provides training in the acquisition and application of basic language skills.
HEB 3112 BEGINNING HEBREW INSTRUCTION III

## HEB 3200 INTERMEDIATE HEBREW INSTRUCTION I

Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
HEB 3201 INTERMEDIATE HEBREW INSTRUCTION II
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.

## ITALIAN

## ITA 3000 ELEMENTARY ITALIAN CONVERSATION

Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.
ITA 3120 BEGINNING ITALIAN INSTRUCTION I

## ITA 3122 BEGINNING ITALIAN INSTRUCTION III

Provides training in the acquisition and application of basic language skills.

## ITA 3200 INTERMEDIATE ITALIAN INSTRUCTION I

Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.

## ITA 3201 INTERMEDIATE ITALIAN INSTRUCTION II

Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.

## ITA 3420 REVIEW GRAMMAR/WRITING I

Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

## ITA 4905 INDEPENDENT STUDY

## LINGUISTICS

LIN 3010 INTRODUCTION TO GENERAL LINGUISTICS
Examination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in English.)
LIN 3200 PHONETICS
The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity.
LIN 3400 APPLIED LINGUISTICS
Examination ol available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/traditional methods. (Conducted in English.)
LIN 3610 DIALECTOLOGY
Definition and analysis. Problem-solving in dialect classification.
LIN 4226 CONTRASTIVE PHONOLOGY
For students proficient in more than one foreign language. Choice of languages to be determined by students and instructor.
LIN 4333 CONTRASTIVE MORPHOLOGY
For students proficient in more than one foreign language. Content and emphasis to be determined by students and instructor.
LIN 4418 PROBLEMS IN LANGUAGE LEARNING
Primarily designed for prospective teachers, but open to all interested students. The course will aim to devise approaches to difficulties commonly experienced in syntax, usage, reading and comprehension.
LIN 4620 STUDIES IN BILINGUALISM
Readings and analysis of bilingual programs and binational goals.
LIN 5625 STUDIES IN BILINGUALISM
Readings and analysis of bilingual programs and binational goals.
LIN 5934 SPECIAL TOPICS IN LINGUISTICS
Content to be determined by students and instructor. (Approval of the Department required.)

## PORTUGUESE

## POR 3000 ELEMENTARY PORTUGUESE CONVERSATION

(VAR)
Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.
POR 3120 BEGINNING PORTUGUESE INSTRUCTION I
Provides training in the acquisition and application of basic language skills.
POR 3121 BEGINNING PORTUGUESE INSTRUCTION II
Provides training in the acquisition and application of basic language skills.
POR 3122 BEGINNING PORTUGUESE INSTRUCTION III
Provides training in the acquisition and application of basic language skills.

## POR 3200 INTERMEDIATE PORTUGUESE INSTRUCTION I

Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
POR 3201 INTERMEDIATE PORTUGUESE INSTRUCTION II
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.

## POR 3420 REVIEW GRAMMAR/WRITING I

Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.
POW 4905 INDEPENDENT STUDY
Project, lield experience, readings, or research.
POW 4930 SPECIAL TOPICS
independent readings, research, or project.
PRT 3401 LITERATURE IN TRANSLATION
Masterpieces of Portuguese literature in English. Comparative use of the original text. Discussion and interpretation.

## SPANISH

Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

Intermediate level. One quarter full-time credit for loreign residence and study. Individual cases will be evaluated for approval.
SPN 3415 COMMUNICATION ARTS

## SPN 3420 REVIEW GRAMMAR/WRITING I

 target language.
## SPN 3421 REVIEW GRAMMAR/WRITING II

 and composition.SPN 3500 CIVILIZATION I

SPN 3733 INTRODUCTION TO GENERAL LINGUISTICS
Examination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in Spanish.)
SPN 3780 PHONETICS
The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity.
SPN 3820 DIALECTOLOGY
SPN 3840 HISTORY OF THE LANGUAGE of evolution.
SPN 3905 INDEPENDENT STUDY
SPN 4013 LANGUAGE SKILLS FOR PROFESSIONAL PERSONNEL etc.).
SPN 4470 FOREIGN STUDY: ADVANCED LANGUAGE/LITERATURE

SPN 4562 STUDIES IN BILINGUALISM
SPN 4790 CONTRASTIVE PHONOLOGY
Contrasts in the sound systems of English and Spanish.
SPN 4800 CONTRASTIVE MORPHOLOGY
Contrasts in the morphology and syntax of English and Spanish.
SPN 4905 INDEPENDENT STUDY

## SPT 3810 CREATIVE WRITING/TRANSLATION

## SPT 4801 PROFESSIONAL TRANSLATION

Techniques and resources for professional translation. Prerequisite: SPT 3800.
SPT 5118 LITERATURE IN TRANSLATION
Masterpieces of world literature. Open to students who are proficient in more than one language.
SPT 5802 TRANSLATION ARTS
Techniques ol professional translation. Prerequisite: SPT 4801

## SPW 3520 PROSE AND SOCIETY

The dynamics of participation and alienation between prose writers and their environment.

## SPW 3580 INTELLECTUAL HISTORY

The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.

## SPW 3582 LITERATURE OF REFORM

The consciousness of change in verbal art.
SPW 3584 LITERATURE OF REPRESSION
The consciousness of constraints, their adoption and/or rejection in verbal art.

## SPW 3820 STYLISTICS

Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.

SPW 3930 SPECIAL TOPICS
Readings and discussion of literary/linguistic topics to be determined by students and instructor.

## SPW 4152 EUROPEAN LITERATURE IN TRANSLATION

For students proficient in more than one foreign language. Content and focus to be determined by students and instructor. (Conducted in Spanish.)

## SPW 4390 GENRE STUDIES

Examination of a single literary form (e.g. Short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

## SPW 4590 CREATIVE MODES

Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

## SPW 4810 PROBLEMS IN READING AND INTERPRETATION

The identification and appreciation of techniques lor sensitive reading and discussion of literary texts.

## SPW 4930 SPECIAL TOPICS

## SPW 5155 COMPARATIVE STUDIES

Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.
SPW 5391 GENRE STUDIES
Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

Content and objectives to be determined by students and instructor.

## SPW 5936 GRADUATE SEMINAR

Topic and approach to be determined by students and instructor. (Approval of the Department required.)

## PERFORMING ARTS

Philip H. Fink, Professor and Chairperson (Music)<br>Clair T. McElfresh, Professor (Music)<br>Philip Giberson, Associate Professor (Theatre)<br>Yoshihiro Obata, Associate Professor (Music)<br>Violet Vagramian, Associate Professor (Music)<br>Terry Twyman, Assistant Professor (Theatre)<br>Joseph Rohm, Assistant Professor (Music)<br>Paul Mazer, Assistant Professor (Theatre)<br>Judith Edwards, Assistant Professor (Theatre)<br>Marie Leeds, Assistant Professor (Music)

## MUSIC MAJOR

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Music
LOWER DIVISION PREPARATION:
Required courses: None
Recommended courses: applied, 12 quarter hours; organizations, 6 quarter hours; theory, 18 quarter hours; sight-singing, 6 quarter hours.
Remark: The student who does not have an Associate of Arts degree, or lacks proficiency in theory, sight-singing, and performance in a major instrument will be expected to take more than 90 quarter hours of upper division work to complete the degree.
UPPER DIVISION PROGRAM:

## APPLIED MUSIC

Quarter Hours
equired Courses6015
15
History: MUH 3372, MUL 4661, MUL 4500 or MUL 4400 ..... 12MUT 3416, MUT 3611
Conducting ..... 2
Applied (6 quarters) ..... 12
Recital and Research and Directed Study ..... 4
Electives.30

## CONDUCTING

Required Courses: ..... 60
Theory ..... 15
History ..... 15
Organizations (6 quarters) ..... 12
Conducting ..... 6*
Applied (6 quarters) ..... 12*The student is required to conduct a performing organization(approximately two numbers - not a complete program) during his orher senior year.
Electives: ..... 30

## THEORY AND COMPOSITION

Quarter Hours
Required Courses: ..... 60
Theory ..... 15
Composition ..... 10
History ..... 10
Organizations (5 quarters) ..... 10
Conducting ..... 2
Applied ( 5 quarters or 5 hours applied and 5 hours composition lessons) ..... 10
Recital and Research and Directed Study* ..... 3*
*The student must perform an original composition with analysis, or lecture on a theoretical subject for the student body.
Electives: ..... 30
90
MUSICOLOGY
Required Courses: ..... 60
Theory ..... 15
History ..... 20
Organizations (5 quarters) ..... 10
Conducting ..... 2
Applied (5 quarters) ..... 10
Research* ..... 3**The student must lecture for the student body, as part of theresearch requirement.
Electives: ..... 30
90
DUAL DEGREE MAJOR
Required Music Courses: ..... 62
Theory ..... 15
History ..... 15
Organizations ( 6 quarters) ..... 12
Conducting ..... 4
Applied (6 quarters) ..... 12
Research and Recital ..... 2
Guitar MUS 3116 ..... 2
Required Education Courses: ..... 45
EDF 3604 Schooling in America ..... 5
EDG 3321 General Teaching Lab I ..... 5
EDG 3322 General Teaching Lab II ..... 5
RED 4325 Reading ..... 5
MUE 3332 Special Teaching Lab Music I ..... 5
MUE 4341 Special Teaching Lab Music II ..... 5
MUE 4940 Student Teaching ..... 15
(Students interested in teacher certification see note on page 242.)

## COURSE DESCRIPTIONS

Ensembles: MUS-Music; MUT-Music: Theory; MVB-Applied Music-Brass; MVK-Applied MusicKeyboard; MVP-Applied Music-Percussion; MVS—Applied Music-Strings; MVV—Applied Music-Voice; MVW-Applied Music-Woodwinds.

## HUM 3949 COOPERATIVE EDUCATION IN HUMANITIES

A student majoring in one of the Humanities (English. History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters lully employed in industry or government in a capacity relating to the major. Prerequisite: Permission ol Cooperative Educatıon Program and major department.

## HUM 4949 COOPERATIVE EDUCATION IN HUMANITIES

A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters lully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

## MUC 4201 MUSIC COMPOSITION I

(5) $(F, W, S)$

A course designed to give the advanced student intensive experience in creative writing. Compositional techniques and devices will be studied, through an analysis of works by major composers. Prerequisite: Orchestration, or permission of instructor.
MUC 4202 MUSIC COMPOSITION II
(5) (F,W,S,SS)

A continuation of Music Composition I. The larger forms of music composition are analyzed and composed. Prerequisite: Music Composition I, or permission of instructor.
MUE 3140 SOLFEGE
(5) (F,W,S,SS)

A course designed to strengthen and build the student's ability to write and perform melodic, harmonic and keyboard dictation. It will also provide a rhythm pattern sequence necessary to write and understand the modern idiom of score reading, analysis and transposition.

## MUG 4101 BASIC CONDUCTING

(2) $(F, S, S S)$

A basic conducting course to gain fundamental technique and interpretation. A prerequisite for both advanced instrumental and choral conducting.
MUG 4201 CHORAL CONDUCTING
With a background in basic theory, and having performed in organizations, the student will develop techniques of group conducting including madrigal, glee, choir, etc. A survey of choral literature will be included. Prerequisite: Basic Conducting.
MUG 4301 INSTRUMENTAL CONDUCTING
(2) (W)

With a background in basic theory, and having performed in organizations, the student will develop a knowledge of baton technique, score reading, and interpretation. Prerequisite: Basic Conducting.
MUG 5105 ADVANCED CONDUCTING TECHNIQUES
(2) $(W, S S)$

An exiension of form and analysis, with interpretation both in instrumental and choral conducting. Twentieth century scoring and symbol interpretation will be studied in depth, with actual conducting experience required.
MUH 3116 EVOLUTION OF JAZZ
(5) $(F, W, S)$

A history course that surveys jazz styles from mid-19th century to 1977. A sociological and musical look at jazz, the personalities and their experiences.

## MUH 3211 MUSIC HISTORY SURVEY

(5) (F)

A survey of music from antiquity to 1750 . Lecture on historical styles will be supplemented with slides, recordings and music analysis.
MUH 3212 MUSIC HISTORY SURVEY
(5) (W)

A survey of music from 1750 to the present. Lectures on historical styles will be supplemented with slides, recordings, and musical analysis.

## MUH 3372 TWENTIETH CENTURY MUSIC: EXPLORATION

(5) $(F, S)$

An exploration of music since 1900. Lectures on style plus demonstrations will be supplemented with recordings and analysis. Elements of the popular idiom will be investigated.

## MUH 5375 TWENTIETH CENTURY MUSIC: "NEW DIMENSIONS"

(4) (W,SS)

A technical study of music since 1900. Lectures on style plus demonstrations and practical application will be supplemented with recordings and analysis. Electronic and multi-media performance will be accented.
MUL 3011 UNDERSTANDING AND ENJOYMENT OF MUSIC I
(5) $(F, S)$

A non-technical introduction to program music of the 19th century, and folk/popular music of the 20th century.
MUL 3012 UNDERSTANDING AND ENJOYMENT OF MUSIC II
(5) (W,SS)

A non-technical introduction to music before the 1800's and music of the 20th century. Comparisons of music up to and including electronic music.
MUL 4400 KEYBOARD LITERATURE
(5) (S)

Study of solo works for the keyboard from historical beginnings to the present. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works.
MUL 4500 SYMPHONIC LITERATURE
(5) (SS)

Survey of symphonic literature from the 17th century to present day. Analysis and illustrations of representative works.
MUL 4661 HISTORY AND LITERATURE OF OPERA
(5) (S)

Chronological survey of opera literature from the 17th century to present day. Analysis and performance of representative works.
MUM 4301 BUSINESS OF MUSIC
(5) (W,SS)

Principles and practices of modern publishing techniques; copyright laws; wholesale and retail distribu-
tion of music. Performance rights; agreements and relations between producers, directors, performers, writers, personnel managers, and booking agents. Prerequisite: Permission of instructor.
MUN 3140, MUN 4460, MUN 5465 WIND ENSEMBLE
(VAR) (F,W,S,SS)
A group of wind and percussion instrumentalists. Prerequisite: Permission of conductor.
MUN 3210, MUN 4210, MUN 5215 ORCHESTRA
(VAR) (F,W,S,SS)
An instrumental ensemble performing works from the symphonic repertory. Prerequisite: Previous experience, and permission of conductor.
MUN 3310, MUN 4310, MUN 5315 COLLEGIATE CHORALE
(VAR) (F,W,S,SS)
A small ensemble of selected mixed voices performing a repertoire in the modern popular idiom. Miniature contemporary accompaniment will be utilized.
MUN 3310, MUN 4310, MUN 5315 UNIVERSITY SINGERS
(VAR) F,W,S)
A chorus performing a repertoire primarily from great choral works. Large orchestral accompaniment as well as various instrumental ensembles will be utilized.
MUN 3460, MUN 4460, MUN 5465 CHAMBER MUSIC
(VAR) (F,W,S,SS)
Small ensemble in the performing of chamber music literature. Prerequisite: Permission of conductor.
MUN 3710, MUN 4710, MUN 5715 STUDIO JAZZ
(VAR) (F,W,S,SS)
An ensemble to provide creative professional-level experience in the contemporary popular idiom.
MUS 3905-MUS 5905 DIRECTED STUDY
(1-5) (F,W,S,SS)
Designed to provide areas of exploration and specialization beyond the basic selected study programs, such as electronic music, religious music literature, sound techniques, etc.
MUS 3910, MUS 4910, MUS 5910 RESEARCH
(1-5) (F,W,S,SS)
Research composition or performance projects, under the guidance and direction of the music faculty. (May be repeated.)
MUT 3031 MUSIC THEORYI
(5) (F,W,S,SS)

Designed to review and develop skills in basic theory, harmony, and ear training.
MUT 3032 MUSIC THEORY II
(5) $(F, W, S)$

Designed to review and further develop skills in basic theory, harmony, and ear training. Prerequisite: Music Theory I, or equivalent.

## MUT 3416 COUNTERPOINT

(5) $(F, S$,

A study of linear writing through species counterpoint. Two and three-part instrumental and vocal counterpoint of the 18th century: Canon, inventions, fugues. Particular emphasis will be placed on formal analysis. Prerequisite: Music Theory II, or equivalent.

## MUT 3611 FORM AND ANALYSIS

(5) (W,S)

Study and analysis from the smaller forms of musical composition to multimovement forms. Prerequisite: Counterpoint.

## MUT 4311 ORCHESTRATION

(5) (W,S)

With a background of basic theory, the student will explore the techniques of writing and arranging for instruments in pertorming organizations and choral groups.

## MUT 4561 TWENTIETH CENTURY THEORY - COMPOSITION

(5) $(F, W)$

This course will analyze and compose works using the following procedures: melodic-harmonic techniques developed in the late nineteenth century; serial, and improvisational techniques; and those derived Irom the use of electronic devices as performance media. Prerequisites: Survey of Basic Music, Counterpoint.

## MUT 5325 ARRANGING

(4) (W,SS)

A course in practical arranging for the public school teacher, including choral, band, and popular arranging.
MVB 3334, MVB 4345, MVB 5355 APPLIED MUSIC - BRASS
(1-2) (F,W,S,SS) Individual instruction in applied music on trumpet, French horn, trombone, baritone horn, or tuba.
MVK 3331, MVK 4341, MVK 5351 APPLIED MUSIC - KEYBOARD
(1-2) (F,W,S,SS)
Individual instruction in applied music on piano or organ.
MVP 3331, MVP 4341, MVP 5350 APPLIED MUSIC - PERCUSSION
(1-2) (F,W,S,SS)
Individual instruction in applied music on all percussion instruments.
(5) $(F, W, S, S S)$ MVS 3116 GUITAR SKILLS
Emphasis on music reading and elementary techniques. Open to all Florida International University students.
MVS 3216 INTERMEDIATE GUITAR SKILLS
(5) (F,W,S,SS)

Emphasis on techniques and styles such as calypso, folk, blues, classical and jazz. Open to all Florida international University students.
MVS 3332, MVS 4343, MVS 5353 APPLIED MUSIC - STRINGS
(1-2) (F,W,S,SS) Individual instruction in applied music in violin, viola, cello, string bass, guitar, or harp.
MVS 4975 RECITAL AND RESEARCH
(2) $(F, W, S, S S)$

All music majors, before graduation, must present at least one half of a public recital, and pass an oral examination on the music programmed.
MVV 3331, MVV 4341, MVV 5351 APPLIED MUSIC - VOICE
(1-2) (F,W,S,SS)
individual instruction in applied music in voice.
MVW 3333, MVW 4345, MVW 5353 APPLIED MUSIC - WOODWINDS (1-2) (F,W,S,SS)
Individual instruction in applied music on flute, oboe, clarinet, bassoon, or saxophone.

## THEATRE MAJOR

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Fine Arts in Theatre
LOWER DIVISION PREPARATION:
Required Courses: Three semester hours each in acting and stagecraft. Equivalent life ex-perience is acceptable upon approval.
Recommended Courses: Three-six semester hours in dance; three semester hours in voice
for the stage; three semester hours in costuming; three semester hours in stage lighting;
three-six semester hours in theatre workshop.
UPPER DIVISION PROGRAM:
The Theatre Program is production oriented. A student entering the program may elect tospecialize in one of the following three areas: Performance (Acting-Directing); Production(Design-Technical Theatre); or Film. In addition to satisfactory completion of all coursework, a Theatre major is required to participate (within his or her area of specialization) in atleast half of all major productions presented during enrollment in the Theatre Program.
Required courses: ..... 60
Theatre History ..... 10
Performance and Production ..... 5
Theatre courses (in area of selected emphasis) ..... 45
Elective courses:
Theatre electives ..... 20
Non-Theatre electives (minimum required) ..... 10
Quarter Hours
COURSE DESCRIPTIONS
DEFINITION OF PREFIXES
DAA-Dance Activities; ORI-Oral Interpretation; SPC-Speech Communication; THE-Theatre;TPA-Theatre Production and Administration; TPP-Theatre-Performance and Performance Training.
THEATRE MAJOR
DAA 3820 DANCE

With some basic movement experience, the student will do movement studies to develop impulses to rhythm and melody patterns. (May be repeated.)

## HUM 3949 COOPERATIVE EDUCATION IN HUMANITIES

A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

## HUM 4949 COOPERATIVE EDUCATION IN HUMANITIES

ing Arts) may spend several quarters fully employed in industry or government in a capacity relating to themajor. Prerequisite: Permission of Cooperative Education Program and major department.ORI 3000 BASIC ORAL INTERPRETATION

## SPC 3600 PUBLIC SPEAKING

Study of the principles of ethical and effective public speaking, with practice in the construction and delivery of original speeches before an audience. (For non-theatre majors only.)

## THE 3000 SURVEY OF THE THEATRE ARTS

A consideration of all the dramatic elements of television, film and live theatre. Designed for the nontheatre student, to generate an awareness and appreciation of the theatre. (For non-theatre majors only.)

## THE 3051 CHILDREN'S THEATRE

Techniques of selection, production and performance of plays for children.
(5) (F,W,SS)

## THE 3071 INTRODUCTION TO FILMAKING

For the beginning student of filmmaking. Survey of the origins and development of cinematography as an art form. Presentation and technical analysis of selected films.

THE 4511 DRAMATIC THEORY AND CRITICISM II
A continuation of Dramatic Theory and Criticism I, including practical application of principles in writing. Prerequisite: Dramatic Theory and Criticism I.

## THE 4820 CREATIVE DRAMATICS

The study of informal drama activity with children. Techniques of improvisation, sense recall, music and movement are employed.

## THE 4916 RESEARCH

Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. (May be repeated.)
THE 4950 PERFORMANCE AND PRODUCTION
Supervised work in university, community, or professional theatre production on an internship basis. Credit will vary with amount of time and responsibility involved. (If taken for less than maximum credit, may be repeated - for a total of not more than 15 quarter hours.)
THE 5916 RESEARCH
(1-5) (F,W,S,SS)
Supervised individual investigation in special research projects. Credit will vary with the nature and scope of the project. (May be repeated.)

## THE 5940 PERFORMANCE AND PRODUCTION

(1-5) (F,W,S,SS)
Supervised work in university, community or professional theatre production on an internship basis. Credit will vary with amount of time and responsiblity involved. (If taken for less than maximum credit, may be repeated - for a total of not more than 15 quarter hours.)
TPA 3010 THEATRE DESIGN
Fundamentals of design for the theatre. Included are methods of analysis and research, technical drawing and rendering.
TPA 3200 STAGECRAFT
A lecture-laboratory course covering the basic elements of scenery construction, painting, rigging, and stage properties.
TAP 3220 STAGE LIGHTING
The study of elementary electricity, lights and circuits; basic techniques of designing and executing lighting for the stage.
TPA 3260 SOUND FOR THE THEATRE

With a knowledge of the lundamentals of theatre design, the student will survey historical styles, and work with advanced directing students to design and execute scenery for a play.

## TPA 4201 STAGECRAFT

Advanced studies of the scene technician's craft, with emphasis on the creative use of modern materials and methods. Selection and cost of materials, multimedia effects, sound eflects, advanced stage carpentry, and stagecratt supervision will be covered.
TPA 4230 STAGE COSTUMING
(5) (F)

Study of period costume design, with emphasis on research techniques, design adaptation, cut fabric, and decorative detail.
TPA 4231 STAGE COSTUMING
(5) (W)

A continuation of TPA 4230. Applied studies in design adaptation, pattern drafting, and total costume.

## TPA 4400 THEATRE MANAGEMENT

Survey of all aspects of theatre administration: budget planning and maintenance; public relations; box oflice and house management: unions and contracts.

## TPP 3100 ACTING

(5) (W,S,SS)

With a fundamental knowledge of stage nomenclature, vocal and physical performance skills, and audition and rehearsal techniques, the sludent will locus on developing a character within a particular acting style. Extensive study and practice in scenes from period plays. (May be repeated.)
TPP 3310 DIRECTING
(5) (W)

A sludy of fundamental directing principles. Areas included will be: choice of play and its analysis, casting, blocking, rehearsal techniques, and coordination of cast and production personnel. Stucients will direct short scenes for performance. (May be repeated.)

TPP 3700 VOCAL TECHNIQUES
(2) $(F, S$,

Development of breath control, diction, resonance and related vocal music techniques. (For theatre majors only.)

# PHILOSOPHY MAJOR, RELIGIOUS STUDIES MAJOR 

George Kovacs, Professor and Chairperson Ricardo Arias, Professor
Bruce Hauptli, Assistant Professor
Richard Konkel, Associate Professor James Huchingson, Assistant Professor Thomasine Kushner, Assistant ProfessorStanislaus Grabarek, Assistant Professor
PHILOSOPHY MAJOR
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Required Courses: None
Recommended Courses: Philosophy, Religion.
UPPER DIVISION PROGRAM:

Remarks: A more detailed description of the Philosophy Program and the identification of "systematic," "historical," and "other" philosophy courses, together with course selection guidelines are contained in a brochure available at the Department of Philosophy and Religion. Students select their required courses in philosophy with the approval of a faculty member of the Department.
Students are also encouraged to consider a "dual-major," and thus simultaneously meet the requirements of two academic majors. In this case, the twenty quarter hour credits required in one other academic discipline (as part of the Philosophy Major) would be met by courses taken towards the second major.
The College of Arts and Sciences requires for the bachelor's degree that the student take a minimum of 10 quarter hours outside the department sponsoring his or her major program. For the different ways of meeting this requirement, please consult the Department.
The Department is planning to offer graduate courses in philosophy during the academic year. Also, consult the Department about the possibility of a master's program in philosophy.
The Department offers many of its courses at the North Miami Campus and also participates in the Humanities Major.

## RELIGIOUS STUDIES MAJOR

DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:

## Required Courses: None

Recommended Courses: Religion, Philosophy UPPER DIVISION PROGRAM:

Quarter Hours
$\begin{array}{lrr}\text { Required Courses: } & & \mathbf{4 0} \\ \text { Systematic Courses } & 5 & \\ \text { Scriptural Courses } & 5 & \\ \text { Historical Courses } & 10 & \\ \text { Other Religious Studies Courses } & \mathbf{2 0} \\ \text { Courses in One Other Discipline } & \mathbf{3 0} \\ \text { Electives } & \mathbf{9 0}\end{array}$
Remarks: A more detailed description of the Religious Studies Program and the identification of "systematic," "scriptural," "historical," and "other" religious studies courses, together with course selection guidelines, are contained in a brochure available at the Department of Philosophy and Religion. Students select their required courses in religious studies with the approval of a faculty member of the Department.
Students are also encouraged to consider a "dual-major" i.e. simultaneously meet the requirements of two academic majors. In this case, the twenty quarter hour credits required in one other academic discipline (as part of the Religious Studies Major) would be met by courses taken towards the second major.
The College of Arts and Sciences requires for the bachelor's degree that the student take a minimum of 10 quarter hours outside the department sponsoring his or her major program. For the different ways of meeting this requirement, please consult the Department.
The Department offers many of its courses at the North Miami Campus and also participates in the Humanities Major.

## Minor in Philosophy:

A student majoring in another academic discipline would earn an academic minor in philosophy by taking a pattern of at least four philosophy courses ( 20 quarter hours), based upon an academic rationale or unifying study theme, and approved by the Chairperson of the Department. An acceptable minor in philosophy would be four courses in one of the areas of systematic courses or four historical courses as designated in the course list of the Philosophy Program. A student may propose still other patterns of four philosophy courses for a minor, provided the selection is based upon an acceptable academic rationale.

## Minor in Philosophy-Religion:

A student majoring in another academic discipline would earn an academic minor in philosophy-religion by taking a pattern of at least four of the following courses: PHH 3843, PHI 3710, PHI 3762, PHM 4000, PHM 4030; or by taking a combination of four other courses offered by the Department, provided the combination is based upon a unifying study theme, and approved by the Chairperson of the Department.

Minor in Religious Studies:
A student majoring in another academic discipline would earn an academic minor in religious studies by taking a pattern of at least four REL courses ( 20 quarter hours), based on an academic rationale or unifying study theme, approved by the Chairperson of the Department. An acceptable minor in religious studies would be four systematic courses, or four scriptural courses, or four historical courses, as designated in course list of the Religious Studies Program. A student may propose still other patterns of four religious studies courses for a minor, provided the selection is based upon an acceptable academic rationale.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

## EDF-Education; Foundations; PHH—Philosophy, History of; PHI—Philosophy; PHM—Philosophy of Man

 and Society; PHP—Philosophers and SchoolsEDF 3542 PHILOSOPHIES OF EDUCATION ..... (5)
Special attention will be given to the development of the student's own philosophy of education, and to the importance of philosophical assumptions in curriculum designs and teaching strategies.

## PHH 3042 LATIN AMERICAN PHILOSOPHIES

This course will examine the development of Latin American thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of prominent Latin American philosophers in the light of problems such as personal and cultural identity
PHH 3100 ANCIENT PHILOSOPHIES
The basic concerns and teachings of representative philosophers and schools of thought, particularly in the Greek and Roman cultural settings, and linkages to their past and future are emphasized in this course.
PHH 3200 MEDIEVAL PHILOSOPHIES
The basic concerns and teachings of representative philosophers and schools of thought in the cultural seltings of the Middle Ages, and linkages to their past and future are emphasized in this course.

## PHH 3300 RENAISSANCE PHILOSOPHIES

The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the Renaissance, and linkages to their past and future are emphasized in this course.

## PHH 3420 MODERN PHILOSOPHIES

The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the 17th and 18 th centuries, and linkages to their past and future are emphasized in this course.
PHH 3700 AMERICAN PHILOSOPHIES
This course will examine the development of American philosophical thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of the prominent American philosophers, in the light of problems such as the relationship between theory and practice.

## PHH 3840 INDIAN THOUGHT

Major schools and works will be examined showing the development of Indian thought, Irom Hinduism through Buddhism. Emphasis will be placed on metaphysical and epistemological problems in Buddhism. Some historical relationships between the basic values of Buddhism and the diverse cultural, social and political forms in which they have been expressed will also be studied.
PHH 4500 NINETEENTH CENTURY PHILOSOPHIES
The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the 19th century, and linkages to their past and future are emphasized in this course.

## PHH 4600 CONTEMPORARY PHILOSOPHIES

The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the present century, and linkages to past and emerging generations are emphasized in this course.
PHI 3010 INTRODUCTION TO PHILOSOPHICAL THINKING
This introductory course examines the presence of philosophy and the role of philosophizing in man's search for understanding of himself and of his world. It includes the study of the basic structure, the many applications, and some basic issues of philosophical thinking, through a dialogue with those original sources, more accessible for a first learning experience in philosophy, which represent basic events in the history of philosophizing.
PHI 3100 LOGIC AND PROBLEM SOLVING
This introductory course in logical thinking and argumentation will treat both practical and theoretical approaches to understanding human communications and solving problems. Students will be introduced to inductive and deductive logic, fallacies, and the role of logic in scientific explanation and popular expression.

## PHI 3300 KNOWLEDGE, THINKING, AND CREATIVITY

The viewpoints of various philosophers and schools of thought regarding types of knowledge, certitude, and creativity are the main emphasis of this introductory course. The meaning of truth and truthfulness is analyzed from both the classical and the contemporary perspectives.

## PHI 3302 MYTH AND PHILOSOPHY

The course will be concerned with the ways in which Western myth and philosophy represent human life.
This topic will be explored through a study of the emergence of philosophy out of myth; the relation of myth to science as the myth of science or the science of myth; and the possible submergence of philosophy back into myth.
PHI 3400 PHILOSOPHIES OF SCIENCE
The philosophic background of scientific method will be examined. Attention will be given to the philosophical consequences of conceptual change in the sciences. Such topics as the growth and unity of science, explanation and prediction, and the role of science in society will be explored.

After an introduction to the various dimensions of social philosophy, in its relationship to other philosophical disciplines, to the social sciences, and to social ideologies; this course will examine some of the fundamental questions raised by human experience regarding the origins, purposes, and types of society. The readings will be chosen from the works of contrasting major social thinkers.

## PHI 3420 HUMANISTIC AND SCIENTIFIC PERSPECTIVES

After a review of several basic philosophical notions, the assemptions, methodologies and consequences of the humanities and the social and natural sciences will be discussed. Topics will be selected from current issues.
PHI 3500 WHAT IS REALITY?
This introductory course examines basic metaphysical questions regarding the nature of reality, as well as the meaning of these questions for man's concept of himself and his world. Fundamental texts from classical and contemporary philosophers will be considered.

## PHI 3630 ETHICS

The nature and principles or ethical knowledge are examined in this introductory course. Questions such as "What is intrinsically good?" "What ought one to do?" and "How are ethical statements justified?" will be investigated by considering readings from Aristotle, Augustine, Mill, Hobbes, and Kant.

## PHI 3700 PHILOSOPHIES OF RELIGION

This course will involve a study of the phenomena of religion, as a means of identifying and evaluating religion's essential and universal element. Consideration will also be given to the relations between the enterprises of philosophy and religion. The result of these investigations will then be applied to specific topics examined by both disciplines.
PHI 3800 PHILOSOPHIES OF BEAUTY AND ART
An introduction to problems in aesthetics, with emphasis on those problems which are especially relevant to appreciation and criticism in the arts. Typical problems include the relation between form and content, truth and falsity in art, the nature of emotion in art and of the aesthetic response, as well as the nature of art itself. This course will include a study of selections from the writings of major thinkers and the consideration of those works of art which are relevant to this study.
PHI 4133 FORMAL LOGIC
The emphasis of this course is on the theoretical properties of logical systems, rather than on their use. The student will be introduced to a selection of advanced logical topics, including some of the chief results of modern logic (e.g. completeness of quantification logic). Prerequisite: An introduction to logic, such as PHI 3100.
PHI 4221 PHILOSOPHY OF LANGUAGE
This course examines the phenomenon of language as an integral part of human culture and as the way of human encounter. It includes contemporary structural and phenomenological analysis of the meaning of language, the power and limitations of speech, the relationship between thought and language, the non-rational thought process and its influence upon rational thought, and language and the power and magic of the word.

## PHI 4222 PHILOSOPHY OF DIALOGUE

This course examines the meaning, the foundations, and the limitations of dialogue; and the dialogical structure of the phenomena of expression, communication, education, and human relationships. It includes a contemporary philosophical analysis of the dialogical principle, and the application of its insights to the problems of human living and knowing

## PHI 4460 PHILOSOPHIC PROBLEMS IN THE SCIENCES

Selected philosophic problems will be explored, drawn either from the natural or the social sciences. (In the latter case the course will be considered equivalent of SOC 4002 Basic Assumptions of Sociology, for the students majoring in programs of Sociology and Anthropology.)
PHI 4630 CONTEMPORARY ETHICAL ISSUES
After a review of basic questions regarding ethics, this course considers special ethical problems in contemporary society from the perspective of one or more philosophers or systems of ethics. Topics will be selected and announced in advance.

## PHI 4631 ETHICAL ISSUES IN BUSINESS

After a review of basic questions regarding ethical knowledge, norms and systems, students will consider the ethical dimensions of current problems and issues facing the business manager or worker: corporate decisions, personal responsibility, product quality and performance, production, marketing and advertising, management, and general economic rationality.

## PHI 4632 ETHICAL ISSUES IN POLITICS

After a review of basic questions regarding ethics, politics, and their relationship, students will consider with historical perspective some fundamental currents and alternatives in the field of political ethics, and then will examine the ethical dimension of some contemporary issues facing the citizen, the public servant and the political leader, such as credibility, technocracy, conflict of interest, and violence.

## PHI 4633 BIOMEDICAL ETHICS

After examining the foundations of ethics, this course will consider the human and ethical dimensions of current issues in the life sciences, such as the meaning of human living and suffering, ethics of genetic control, death and dying, personal responsibility in the medical and counselling professions.

## PHI 4680 VALUE THEORIES

Several questions will be examined in this course in the context of classical and contemporary value theories. What is value? How are values known? What are the determinants of value? How do values differ from beliefs and attitudes? Are values relative?
PHI 4882 PHILOSOPHY IN LITERATURE
This course will examine modern philosophical currents as seen in the works of pertinent literary figures,
such as Tolstoy, Dostoevsky, Conrad, Katka, Koestler, Camus and Mann. Certain basic themes resulting from the merging of aesthetıc value and philosophic reflection will be examined: the self, alienation, history, the absurd, time and death.

## PHI 4910 INDEPENDENT RESEARCH

Topics will be selected to meet the academic needs of the individual student.

## PHI 4935 PHILOSOPHY SEMINAR

This seminar is designed for majors and other qualified students approved by the Department, and will be guided by one or more laculty members. The specific topic will be selected and announced in advance. The number of participants will be limited.

## PHI 5934 SPECIAL TOPICS

Topics will be selected to meet the academic needs of groups of students.

## PHM 3500 PHILOSOPHIES OF HISTORY

Alter exploring the definitions, dimensions and interrelations of philosophy and history, students will examine major philosophies of history. The social responsibility of the historical narrative and the philosophical assumptions of historiographies will be discussed.

## PHM 4020 LOVE AND SEXUALITY

This course examines the different philosophical approaches to love and sexuality, and studies the basic problems in human sexual living, such as love and the man-woman relationship, the formation of sexual union, and attitudes toward love and sexuality in contemporary society.

## PHM 4050 PHILOSOPHY OF DEATH

This course analyzes the meaning of death and man's attitude towards death and the dying. It examines how philosophy can share in the new confrontation between man and his death, and shows the ways philosophical thinking contributes to the discovery of an authentic attitude towards the phonomenon of death as part of human living.

## PHM 4220 CHANGE AND ORDER IN SOCIETY

This course will examine the dimensions of change and order in contemporary societies, developed and underdeveloped, with particular attention to the human values involved, in the light of different philosophical theories and socio-political ideologies.
PHM 4400 PHILOSOPHY OF LAW
After an analysis of the nature of law and judicial reasoning in the light of fundamental alternative interpretations; basic topics of legal philosophy will be considered, such as treedom and rights, responsibility and punishment, rule of law and civil disobedience, legality and justice
PHP 3840 CHINESE AND JAPANESE PHILOSOPHIES
This course will examine the main currents of Chinese and Japanese thought, with special focus on the quest of the Chinese people toward a more harmonious adjustment to their environment. The investigation will include consideration of the Confucian, Mohist, Taohist, Legalist and Zen Buddhist philosophies.
PHP 4510 MARXISM
This course examines the philosophic insights of Marx and the main trends (anthropological, social, existential) in contemporary Marxism. It includes an analysis of the Marxist interpretation of alienation, work, and human authenticity.

## PHP 4782 PHENOMENOLOGY

This course analyzes the method, the basic philosophical insights and the applications of contemporary (German and French) phenomenological thinking. It will include both the experiencing of phenomenological awareness (of freedom, of knowledge, of encounter) and the study of original texts.

## PHP 4784 ANALYTICAL PHILOSOPHY

This course examines the 20th century Anglo-American tradition of approaching philosophic problems by the methods of linguistic analysis. It will include study of techniques of linguistic analysis and an evaluation of their adequacy in dealing with meaning and truth, the mind-body problem, and free will.

## PHP 4786 MODERN EXISTENTIALISM

This course examines the origin, basic philosophical insights, and influence of the mainstreams (French. German, Russian, Spanish) of modern existentialism.

## RELIGIOUS STUDIES MAJOR

## DEFINITION OF PREFIXES <br> REL-Religion.

## REL 3160 ECSTASY AND CELEBRATION

The course will examine the dynamic aspects of celebration, dance, ecstasy, play, and other expressions of joyous sell-abandonment in religious experience. Lectures, student participation, guest speakers, and field trips will be employed.

## REL 3161 HUMAN RELIGIOUS EXPERIENCE

This course will examine the nature of ethics in its relationship to faith orientation. After considering the various religious loundations of ethics in the thought of influential ethical thinkers, attention will be given to the application of these perspectives to pressing ethical problems in contemporary society.
REL 3175 MARRIAGE AND DIVORCE
This course will explore what resources for a renewed contemporary understanding of marriage may be found in religious biblical perspectives. In addition, considerable attention will be given to the crisis of divorce.

## REL 3186 MAN: THE SYMBOL MAKER

The meaning of human language, myth, symbols, and rites in connection with the religious experience of man will be explored in this course. Special emphasis will be placed on the existential, social, and religious values of the rites of initiation, communion, and marriage.

## REL 3210 BIBLICAL WRITINGS AND THOUGHT

An introductory survey of the Old Testament from the points of view of historical background, the cultures in which the works were written, and the ideas they contain. Emphasis will be given to the relevance of biblical themes for the contemporary situation.

## REL 3224 THE PROPHETS

What is a prophet? This course will attempt to answer this question both in terms of the classic Hebrew prophets, whose acts and words are preserved in the Old Testament, and the nature of the prophetic vocation in the contemporary world

## REL 3250 JESUS IN HIS AND OUR TIMES

This course is a study of the life of Jesus through an examination of his acts and words as recorded by his contemporaries in the New Testament. Attention will also be given to the interpretation of Jesus' message by theologians and others as they seek to relate him to the modern world.
REL 3252 THEOLOGY OF PAUL
This course will survey the life and times of Paul as a prelude to an indepth study of this primary Christian thinker. Attention will be given both to the sources of his thought and to its contemporary relevance.
REL 3270 BIBLICAL THEOLOGY
(VAR)
This course will examine the thought and heritage of the Bible, especially as it discloses the history of the Hebrew people, the role of the prophets, the life and times of Jesus, and the thought of Paut. Major themes will be related to modern movements in Judaism and Christianity.

## REL 3300 RELIGIONS OF THE WORLD

Introduction to the major faiths of mankind. Included in the discussion will be Hinduism, Buddhism,
Taoism, Islam, Judaism, and Christianity. The course will involve a comparison of common elements in these major religions while respecting their distinctive features.

## REL 3354 ISLAM AND ISLAMIC MYSTICISM

The study of Islam as a major world religion in terms of its history, scripture, and practice. Emphasis will also be given to the various types of mysticism associated with Islam, and to modern movements of this laith.
REL 3410 WHO IS GOD?
This course will trace the idea of God from primitive culture through Greek, Hebrew and Christian thought to the contemporary situation. The various responses to the question of God given by particular groups in modern society will be examined, in order to see the relevance of these responses to current issues and life styles
REL 3442 BASIC DILEMMAS IN FAITH AND REASON
This course examines the nature and boundaries of faith and reason, contemporary atheism, and the religion-science relationship, from the religious perspective. It deals with the need to achieve a coherent and human grasp of personal living and reality.

## REL 3464 REVELATION AND SCIENCE

This course will explore science and revelation as basic avenues to knowledge of ultimate significance in an effort to discover their respective underlying assumptions. In response to those who raise questions about religious beliels in ways that demand evidence and reasons, it will then discuss such sources of revelation as scripture, prophecy, incarnation, miracle, natural order, religious experience, and mysticism.
REL 3510 EARLY CHRISTIANITY
This course will survey the development of Christian thought and practice from its beginnings as a primitive church to its establishment as a major faith in the Middle Ages. It will then consider the relevance of this early experience for modern movements of this faith.
REL 3532 REFORMATION
The lives and thoughts of the leaders of the Protestant Relormation will be the focus of this course. Significant attention will be given to the perennial personal experiences and theological perspectives which directed the actions of such persons as Luther, Calvin, and Zwingli, as welf as the movements they lounded.

This course will survey the basic beliels of Christian doctrine in its more modern and existential insights. For this purpose the course will take into consideration the social, cultural and scientific revolution associated with the thinking of Hume, Darwin, Marx, Freud, and other thinkers who furnish the background lor the emerging newer understanding of Christian faith.

## REL 3600 JUDAISM

This course is an introduction to this major world religion. Following a survey of the history of Judaism, major themes in Jewish religious thought will be highlighted, especially as they relate to modern movements of this faith.

This course will examine the nature and place of prayer in modern Judaism. After a survey of the place of prayer in the life and history of ancient Israel as reflected in Hebrew Scriptures and Rabbinic writings, attention will be focused on the leachings concerning prayer and its practice in contemporary Jewish worship and spirituality
REL 4138 INSTITUTIONAL RELIGION IN NORTH AMERICA
This course will examine the patterns and development of organızed religion in North America. Of special interest will be an assessment of emerging changes in religious institutions with regard to their norms and social relevance. For example, the contrast between the more spontaneous and less structured movements and the more established institutional forms will be pursued.

## REL 4183 WESTERN MYSTICS

The course considers the roots and development of western mysticism, including contemporary expressions of the same, through a direct analysis of selected works of major mystics. On this basis, the course will attempt to identify synthelically the essential characteristics of mystical experience.

## REL 4411 WHAT IS MAN?

What is the image of man in religious thought? How does this image compare and contrast with man as understood by science and the humanities? This course will attempt to speak to these questions in an effort to establish constructive dialogue between religious and other perspectives.
REL 4420 CONTEMPORARY JUDAIC-CHRISTIAN RELIGIOUS THOUGHT
This course will examine contemporary issues facing Judaism and Chrislianity, such as formulation of faith, institutional identity, liturgical prayer, ecumenism, marriage, and social commitment. It will consider comparatively the manner in which Jewish and Christian theologians of today meet these issues.

## REL 4430 STUDIES IN RELIGIOUS THINKERS

A major religious thinker or school of thought will be examined in depth or compared with another major perspective. Possible figures include Augustine, Aquinas, Luther, Calvin, Kierkegaard, Buber, Heschel, Barth, Tillich, Teilhard and Altizer. The specific thinkers or school of thought will be selected and announced in advance.

## REL 4461 WHY SUFFERING AND EVIL?

The problem of evili is as perennial as it is perplexing in religious thought. This course will examine the major theological responses to the problem of evil and the fact of suffering, in order to ascertain the adequacy and relevance of those responses for today.

## REL 4463 ISSUES IN RELIGION AND SCIENCE

An examination of the relationships between the perspectives of religion and science and the consequences of these relationships for our time. A different major topic will be selected and announced each time the course is offered

## REL 4481 CONTEMPORARY LATIN AMERICAN RELIGIOUS THOUGHT

The major trends of religious thought in Latin America and their impact on the society of the area will be investigated. Special reference will be made to Post-Vatican II theology and to very recent theologies of liberation.
REL 4485 NEW OPTIONS IN RELIGIOUS EXPERIENCE
An examination of the methods for studying religious experience will be followed by an application of the results to the numerous types of religious phenomena currently being promoted in our culture. These include Witchcraft, Zen, pentecostalism, drug experience, revivals, jesus people, Hare Krishna, and spiritualism.
REL 4493 RELIGION AND MODERN MAN
(VAR)
An examination of relevant issues in religion concerning modern man. Behavioral as well as conceptual expressions are analyzed
REL 4496 THE END?
What happens after death? This course will explore the various answers to this question, given by contemporary theologians and thinkers.
REL 4808 APPLIED THEOLOGY
(VAR)
The study of contemporary problems and methodologies of pastoral theology in a practical-theoretical context.
REL 4910 INDEPENDENT RESEARCH
REL 4931 RELIGIOUS STUDIES SEMINAR
This seminar is designed for majors and other qualified students approved by the Department, and will be guided by one or more faculty members. The specific topic will be selected and announced in advance. The number of participants will be limited
REL 5937 SPECIAL TOPICS
Topics will be selected to meet the academic needs of groups of students.

## INTERDISCIPLINARY: PHILOSOPHY AND RELIGIOUS STUDIES

## DEFINITION OF PREFIXES

PHH—Philosophy, History of; PHI—Philosophy; PHM—Philosophy of Man and Society; PHR—Interdisciplinary Philosophy/Religion

## PHH 3843 YOGA

The ancient techniques of "Hatha Yoga" relaxation and breathing leading to meditation, mastership of self, and inner peace will be the content of this course. The course will be both theoretical and practical, with major emphasis on the latter

## PHI 4936 INTERDISCIPLINARY SEMINAR

This seminar is designed for majors and other qualified students approved by the Department, and will be guided by one or more faculty members. The specific topic will be selected and announced in advance. The number of participants will be limited.
PHI 5934 SPECIAL TOPICS
Topics will be selected to meet the academic needs of groups of students.
PHM $\mathbf{4 0 0 0}$ HUMAN IDENTITY
This interdisciplinary course will explore philosophical, religious and psychological views on personhood. Several questions will be examined: What constitutes personhood? What is the self-concept? What does it mean to be an authentic person? How free is any person?
PHM 4030 MAN AND NATURE
This course will examine the philosophical understanding of nature and of man's relation to nature as his environment. It will explore the humanistic perspectives of both scientific and philosophical interpretations of nature and environment. It will also deal with the diverse influence of technology and social organizations, through their impact on man's environment, on the quality of human living.
PHR 4930 PEACE AND SOCIETY
Students will survey several cogent international questions and issues from the point of view of philosophical and religious thought; socio-political forces underlying peace/unrest, impact of social protest upon the ethical and political values of various cultures, the ideology and efficacy of non-violence, the economic and social costs of national defense/war/peace. Major Eastern and Western peace documents will be examined
PHR 4931 TECHNOLOGY AND HUMAN VALUES
This course will explore the sources and impact of modern technology from philsophical and religious perspectives. Topics to be discussed include the effects of technology upon understanding of human nature; and the relationship between technology, the natural environment and hopes for a livable human future.

The Department of Philosophy and Religion also participates in the Continuing Education Program of the University and thus serves the community and professional groups by offering several courses offcampus. For further information concerning these courses (e.g. credit hours, courses not listed in the catalog) consult the Department.

# DEPARTMENT OF PHYSICAL SCIENCES CHEMISTRY, EARTH SCIENCES, ENVIRONMENTAL STUDIES, PHYSICS 

Howard E. Moore, Professor and Chairperson<br>John W. Sheldon, Professor<br>Kenneth A. Hardy, Associate Professor<br>Arthur W. Herriott, Associate Professor<br>Leonard S. Keller, Associate Professor<br>Florentin J-M. R. Maurrasse,<br>Associate Professor

Stephan L. Mintz, Associate Professor<br>Ralph E. Morganstern, Associate Professor<br>John H. Parker, Associate Professor<br>Kathryn R. Williams, Associate Professor<br>Usman A. Sayeed, Assistant Professor<br>Zaida C. Martinez, Instructor

## CHEMISTRY

The student may choose a Bachelor of Arts program or a Bachelor of Science program of study in Chemistry.
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Arts
This program is for students preparing for careers in medicine, dentistry, environmental studies, veterinary medicine, or secondary science education. Students interested in teacher certification see note on page 242.)

## LOWER DIVISION PREPARATION:

Required Courses: one year of general chemistry with lab; algebra and trigonometry; one year of general biology with lab.
Lower or Upper Division Preparation: required courses which may be taken at the University: MAC 3411-MAC 3412 Differential and Integral Calculus CHM 3210, 3210L-CHM 3211, 3211L Organic Chemistry I-II with lab, PHY 3040C-PHY 3041C-PHY 3042C Physics with Calculus or PHY 3050C-PHY 3051C Physics without Calculus.

## UPPER DIVISION PROGRAM:

|  |  | Quarter Hours |
| :---: | :---: | :---: |
| Required Courses: |  | 26 |
| CHM 4220 | Advanced Organic Chemistry | 5 |
| $\begin{aligned} & \text { CHM 4230L } \\ & \text { or } \end{aligned}$ | Organic Structure Determination | 2 |
| CHM 4320L | Research Techniques in Organic Chemistry | 2 |
| CHM 3400 | Physical Chemistry for Life Sciences | 5 |
| CHM 3400L | Physical Chemistry for the Life Sciences Laboratory | 2 |
| CHM 3120 | Quantitative Analysis | 5 |
| CHM 3120L | Quantitative Analysis Laboratory | 2 |
| One additiona | hemistry course | 5 |
| Electives: |  | 64 |
|  |  | 90 |

## OR

DEGREE: Bachelor of Science
This program prepares the student for graduate study or a professional career as a chemist in industry, in government service, or in secondary school teaching.
LOWER DIVISION PREPARATION:
Required Courses: One year of general chemistry with lab; algebra and trigonometry.
Lower or Upper Division Preparation: required courses which may be taken at the University: MAC 3411-MAC 3412 Differential and Integral Calculus CHM 3210, 3210L-CHM 3211, 3211L Organic Chemistry I-II with lab, PHY 3040C, PHY 3041C, PHY 3042C Physics with Calculus.

## UPPER DIVISION PROGRAM:

| Required Courses: |  | Quarter Hours |
| :---: | :---: | :---: |
|  |  | 61 |
| CHM 4220 | Advanced Organic Chemistry | 5 |
| CHM 4230L or | Organic Structure Determination | 2 |
| CHM 4320L | Research Techniques in Organic Chemistry | 2 |
| CHM 3410 | Physical Chemistry IThermodynamics | 5 |
| CHM 3411 | Physical Chemistry II - Equilibrium and Properties of Solutions | 5 |
| CHM 3412 | Physical Chemistry III - Quantum Mechanics | 5 |
| CHM 3410 -CHM 3411L-CHM 3412 Physical Chemistry |  |  |
|  | Laboratory I-II-III | 2-2-1 |
| CHM 3120 | Quantitative Analysis | 5 |
| CHM 3120L | Quantitative Analysis Laboratory | 2 |
| CHM 4130 | Modern Analytical Chemistry | 5 |
| CHM 4130L | Modern Analytical Chemistry Laboratory | 2 |
| CHM 4610 | Advanced Inorganic Chemistry | 5 |

CHM 4930 Senior Seminar 2
CHM 4910L, 4911L and/or 4912L Research and Independant
One additional senior-level chemistry course 5
Other Required Courses: at least one of the following:
MAP 3302 Differential Equations 5
MAP $4401 \quad \begin{gathered}\text { Math Methods in the Physical } \\ \text { Sciences }\end{gathered}$
COP 3110 Introduction to Computers 5
Electives:

Remarks: No D grades will be allowed in courses required for the major. This rule includes required courses outside the discipline.

Minor in Chemistry:

| Required Courses: <br> CHM 3045, 3045L-CHM 3046, 3046L Contemporary Chemistry <br> with Laboratory | Quarter Hours |
| :---: | :---: |
| LHM 3210, 3210-CHM 3211, 3211L Organic Chemistry with <br> Laboratory | 14 |
| CHM 3120, 3120L Quantitative Analysis with Laboratory | 14 |

## CRIMINALISTICS-CHEMISTRY PROGRAM

Criminalistics-Chemistry Core Requirements:
Same as requirements for bachelor's degree in Chemistry. (Degree granted by Department of Physical Sciences).
Chemistry Electives:
If the student chooses the BA degree in Chemistry, he/she should elect at least one of the following:
CHM 4490 Advanced Spectroscopy and Molecular Structure 5
CHM 4130,4130L Modern Analytical Chemistry with lab 7
Internship.
A $5-10$ credit internship in the laboratory of a participating criminal justice agency.
Criminal Justice Coursework:
The student should elect 15 credits of criminal justice courses in consultation with an advisor in the Department of Criminal Justice.
Electives:
Coursework in the behavioral and political sciences, as well as upper division coursework in the biological sciences, is recommended to total 90 quarter hours.

## MASTER OF SCIENCE IN CHEMISTRY

The Department of Physical Sciences at Florida International University participates jointly with the Department of Chemistry at Florida Atlantic University in offering the M.S. in Chemistry. Students entering the program must have a B.S. (or equivalent), and must satisfy the requirements for admission to the FAU master's program. Students may take a substantial part of their course work at FIU and may undertake their research under the supervision of an FIU faculty member. Two Florida International University faculty members serve on each student's advisory committee. The degree is awarded by Florida Atlantic University. Students in the program must satisfy the FAU requirements for the M.S. in Chemistry.

## COOPERATIVE EDUCATION

Students seeking the baccalaureate degree in Chemistry may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends several quarters fully employed in an industrial or governmental chemistry laboratory. For further information consult the Department of Physical Sciences or the Department of Cooperative Education.

## COURSE DESCRIPTIONS

## definition of prefixes:

CHM-Chemistry: CHS-Chemistry-Specialized; ISC-Interdisciplinary Natural Science.

## CHM 3030 SURVEY OF GENERAL CHEMISTRY

A basic one-quarter survey course in inorganic chemistry for non-majors. Topics include atomic structure, stoichiometry, bonding, equilibrium, electrochemistry. (Does not fulfill requirements for chemistry, biology, or pre-med majors.) Familiarity with algebraic manipulations is required. Must be taken concurrently with CHM 3030.
CHM 3030L SURVEY OF GENERAL CHEMISTRY LABORATORY
Laboratory to accompany CHM 3030. Basic laboratory techniques are introduced. Must be taken concurrently with CHM 3030.
CHM 3045-CHM 3046 CONTEMPORARY CHEMISTRY I-II
(5-5) (F-W,S-SS)
Fundamental principles of modern chemistry: atomic structure, stoichiometry, chemical bonding, states of matter, thermodynamics, solutions, kinetics, equilibrium, electrochemistry. This course is primarily designed for the student who feels that his/her background in general chemistry is somewhat weak and who would like to go on to organic chemistry or more advanced biology courses. Familiarity with algebraic manipulations is required. Should be accompanied by CHM 3045L-3046L

## CHM 3045L-CHM 3046L CONTEMPORARY CHEMISTRY LABORATORYI-II

(2-2) (F-W, S-SS)
Laboratory to accompany CHM 3045-3046. Basic laboratory techniques are introduced, and experiments performed on material relating to CHM 3045-3046.
CHM 3120 QUANTITATIVE ANALYSIS
(5) (W-S-SS)

Fundamentals of classical quantitative analysis. Topics include: theory of precipitation, acid-base, and oxidation-reduction reactions, as well as an introduction to spectrophotometric methods of analysis, ionexchange techniques, and complex formation titrations. Must be taken concurrently with CHM 3120L. Prerequisite: CHM 3045-3046.
CHM 3120 L QUANTITATIVE ANALYSIS LABORATORY
(2) (W-S-SS)

Laboratory to accompany CHM 3120. Must be taken concurrently with CHM 3120.

## CHM 3200 SURVEY OF ORGANIC CHEMISTRY

(5) (W)

A basic one-quarter survey course in organic chemistry for non-majors, presenting a broad background in the reactions and structures of organic molecules. (Does not fulfill requirements for chemistry, biology, or pre-med majors.) Must be taken concurrently with CHM 3200L. Prerequisite: general chemistry.

## CHM 3200L SURVEY OF ORGANIC CHEMISTRY LABORATORY

(5) (W)

An introduction to the basic experimental techniques of organic chemistry. Co-requisite: CHM 3200.
CHM 3210-CHM 3211 ORGANIC CHEMISTRY
(5) (F-W, S-SS)

An introduction to chemical bonding and atomic structure theory as it pertains to the chemistry of carbon compounds. Correlation between structure and reactivity of organic molecules, followed by a systematic look at the various reaction types, using reaction mechanisms as a tool for study. Prerequisite: general chemistry.
CHM 3210L-CHM 3211L ORGANIC CHEMISTRY LABORATORY
(2) (F-W, S-SS)

An introduction to the basic experimental techniques of the organic chemist. Synthesis and qualitative analysis of organic compounds. Corequisites: CHM 3210-CHM 3211.

## CHM 3400 PHYSICAL CHEMISTRY FOR THE LIFE SCIENCES

(5) (S)

Principles of physical chemistry with particular reference to the life sciences. Topics include thermodynamics, equilibria, electrochemistry, and reaction kinetics. Prerequisites: Differential and integral calculus, and general physics. A background in quantitative analysis is also helpful.
CHM 3400L PHYSICAL CHEMISTRY FOR THE LIFE SCIENCES LABORATORY
Projects in physical properties of solutions, equilibrium, reaction kinetics, and equations of state of interest to students in life sciences. Must be taken concurrently with CHM 3400.
CHM 3410/PHY 3503 PHYSICAL CHEMISTRY I-THERMODYNAMICS
Fundamental principles of thermodynamics, the first, second, and third laws, free energy, entropy, in addition to the chemical potential, phase rule and its applications, and concepts of activation energy. The first in a three-quarter physical chemistry sequence. Prerequisites: general chemistry, general physics, and mathematics through Calculus II. Calculus II may be taken concurrently.
CHM 3410 L PHYSICAL CHEMISTRY LABORATORYI
Equation of state and transport experiments. Must be taken concurrently with CHM 3410.
CHM 3411 PHYSICAL CHEMISTRY II-EQUILIBRIUM, KINETICS AND PROPERTIES
OF SOLUTIONS
(5) (W)

The second in the series of physical chemistry courses: equilibrium. the relationship of the equilibrium
constant to the chemical potential, catalyzed reactions, colligative properties of solutions, osmotic pressure, dipole moments and conductivity. Prerequisite: CHM 3410.
CHM 3411 PHYSICAL CHEMISTRY LABORATORY II
Projects in thermochemistry, physical properties of solutions, and homogeneous equilibria. Must be taken Projects in thermochemistry, p
concurrently with CHM 3411.
CHM 3412/PHY 4604 PHYSICAL CHEMISTRY III-QUANTUM MECHANICS
The third in the physical chemistry series: simple quantum mechanical calculations, solutions to the Schroedinger wave equation, simple harmonic oscillator, particle in a square well, the hydrogen atom, structure of atomic and molecular orbitals. Prerequisites: general chemistry, general physics, and mathematics through Calculus II.
CHM 3412L PHYSICAL CHEMISTRY LABORATORY III
(1) (S)

Helerogeneous equilibria, reaction kinetics in solution. Requires some knowledge of chemical reaction mechanisms in solution.
CHM 4090L INTRODUCTION TO SCIENTIFIC GLASSBLOWING
Basic glassblowing operations with glass tubing and rod are taught. Emphasis is on making and repair of
scientific glassware, but some decorative work is included.

## CHM 4130 MODERN ANALYTICAL CHEMISTRY

(5) (W)

A lecture-laboratory course designed to introduce instrumental methods of chemical analysis, including spectrophotometry, potentiometry, gas chromatography, atomic absorption, and polarography. Specific instrumental techniques will be covered. Must be taken concurrently with CHM 4130L. Prerequisites: Quantitative analysis, organic chemistry, and general physics.

## CHM 4130L MODERN ANALYTICAL CHEMISTRY LABORATORY <br> Laboratory to accompany CHM 4130. Must be taken concurrently with CHM 4130.

CHM 4180 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY
(VAR)
An intensive examination of one or more areas selected by instructor and students.

## CHM 4220 ADVANCED ORGANIC CHEMISTRY <br> (5) (F-S) <br> A look into specialized areas of organic chemistry, including such topics as molecular rearrangements,

 photochemistry, pericyclic reactions and heterocyclic chemistry; as well as more detailed examination of synthesis, etc. Should be accompanied by a laboratory: CHM 4230L or CHM 4320L.
## CHM 4230 L ORGANIC STRUCTURE DETERMINATION <br> (2) $(F-S)$ <br> The qualitative analysis of organic compounds using modern spectroscopic and chemical methods.

CHM 4300 BIO-ORGANIC CHEMISTRY
(5) (S)

Chemistry of naturally occurring organic compounds of biological importance. The relationship between organic chemistry and the chemical reactions which constitute the living organism.

## CHM 4310 SPECIAL TOPICS IN ORGANIC CHEMISTRY <br> An intensive examination of one or more areas selected by instructor and students.

(VAR) (F)
CHM 4320L RESEARCH TECHNIQUES IN ORGANIC CHEMISTRY
(2) $(F-S)$

Practical instruction in the more advanced manipulations and procedures of the modern organic laboratory. This course is designed to prepare a student for research in organic chemistry, and is a prerequisite for independent study (CHM 4910L, 4911L, 4912L) in organic chemistry.

## CHM 4460/PHY 4523 STATISTICAL THERMODYNAMICS

Review of the fundamental laws of thermodynamics applied to simple systems. Elementary kinetic theory of gases applied to diflusion, viscosity, thermal and electrical conductivity. Boltzmann, Fermi-Dirac and Bose-Einstein distribution functions applied in the Boltzmann limit to the calculation of thermodynamic variables. Prerequisites: General chemistry, general physics and mathematics through Calculus II.

## CHM 4490 SPECTROSCOPY AND MOLECULAR STRUCTURE

(5) (W)

Molecular structure and its relationship to spectroscopy. Introduction to theory and practical use of uv/visible, infrared, nmr, and mass spectroscopy. For accompanying laboratory, see CHM 4230L. Prerequisite: Competency in organic chemistry is required. (Physical chemistry is recommended.)

## CHM 4580 SPECIAL TOPICS IN PHYSICAL CHEMISTRY

(VAR) (W)
An intensive examination of one or more areas selected by the instructor and students.
CHM 4610 ADVANCED INORGANIC CHEMISTRY
(5) (F)

Molecular structure ol inorganic compounds, periodicity, introduction to nonaqueous solvents, ligand lield theory, organometallic compounds.

## CHM 4680 SPECIAL TOPICS IN INORGANIC CHEMISTRY

(VAR) (S) An intensive examination ol one or more areas selected by instructor and students.
CHM 4910 -CHM 4911-CHM 4912 RESEARCH AND INDEPENDENT STUDY IN CHEMISTRY (VAR) (F-W-S-SS)
The student works directly with a protessor on a research project. It is anticipated that the student present the results of the project as a seminar (see CHM 4930) project. Credit is assigned on the basis of $4 \mathrm{hr} / \mathrm{wk}$ of laboratory/library work per 1 hr o! credit. It is recommended that the 4 credits required of all BS chemistry majors be taken over 2 quarters. A written report is required.

## CHM 4930 SENIOR SEMINAR

(VAR) (W)
Each student will make an oral presentation to faculty and other students enrolled in the seminar course.
The subject of the seminar presentation may be either a report of results of an independent study project. or a survey of the recent literature on an assigned topic.
CHM 5181 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY
An intensive examination ol one or more areas selected by instructor and students.
CHM 5250 ORGANIC SYNTHESIS
Use ol classical and modern reactions in the design and construction of complex organic molecules, in-
cluding natural products. Some topics covered will be construction reactions, refunctionalization, stereochemistry, and conformationa! analysis.

## CHM 5260 PHYSICAL ORGANIC CHEMISTRY

A series of topics will be discussed, including molecular orbital theory as it pertains to organic molecules, kinetic and thermodynamic approaches to the study of reaction mechanisms, quantitative approaches to conlormational analysis, etc
CHM 5280 NATURAL PRODUCTS CHEMISTRY AND BIOSYNTHESIS
Siudies of the chemical origins (biosynthesis), properties, and synthesis of the various classes of naturally occurring compounds: terpenes, steriods, alkaloids, acetogenins.
CHM 5380 SPECIAL TOPICS IN ORGANIC CHEMISTRY
An intensive examination of one or more areas selected by instructor and students.
CHM 5440 KINETICS AND CATALYSIS
Theory of elementary reactions, activated complex theory, mechanisms of complex reactions. Prerequisite: competence in fundamental calculus, including differential equations.
CHM 5517/PHS 5400 SOLID STATE
(W)

Crystalline form ol solids, lattice dynamics, metals, insulators, semi-conductors, and dielectric materials. Prerequisites: General chemistry, general physics, and mathematics through Calculus II.
CHM 5650 PHYSICAL INORGANIC CHEMISTRY
Introduction to use of physical methods to determine structure of inorganic compounds.
CHM 5681 SPECIAL TOPICS IN INORGANIC CHEMISTRY
(VAR) (S)
An intensive examination of one or more areas selected by instructor and students.
CHM 5881 SPECIAL TOPICS IN PHYSICAL CHEMISTRY
(VAR) (W)
An intensive examination of one or more areas selected by instructor and students.
CHS 4100L RADIOCHEMICAL TECHNIQUES LABORATORY
Experiments involving handling, detection, chemical separation and use of radioisotopes. Students must have concurrent enrollment in either CHM 4110 or EVR 5141
CHS 4110 RADIOCHEMISTRY AND NUCLEAR CHEMISTRY
Production, isolation, methods of detection, counting statistics, and estimation of radioisotopes. Applications to chemical, physical and biological problems. Prerequisites: CHM 3045-3046 and CHM 3120.
ISC 3949 -ISC 4949 COOPERATIVE EDUCATION IN PHYSICAL SCIENCES
One quarter of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student.
ISC 4041 SCIENTIFIC LITERATURE
(2) (W)

This course presents a perspective on scientific literature and scientific documentation. Problems in using and searching the scientific literature will be specifically designed to meet the needs of various disciplines, e.g. chemistry, environmental science, physics, biology.

## EARTH SCIENCES

This program is interdisciplinary in nature and provides the background the student will need in professional work or graduate study. While thoroughly preparing the student in the basic sciences, the program also provides a sound knowledge of Caribbean earth sciences. Student and faculty exchanges will be promoted with counterparts in the Caribbean. The student may choose either a Bachelor of Arts program or a Bachelor of Science program in earth sciences.

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Arts
This program is for the student who desires a significant background in the earth sciences for a career in science education, or in a public or private agency dealing with problems in the framework of the earth sciences.

## LOWER DIVISION PREPARATION:

Required Courses: general biology, physical geology or the equivalent; college algebra, trigonometry, and analytical geometry; general physics; general chemistry.
UPPER DIVISION PROGRAM:

Required Courses:
AST 3100 Modern Astronomy 5
MET 4701 Meteorology 5
GLY $4650 \quad$ Paleobiology 5
GEO 3200C Physical Geography 5
OCE 3014 Physical Oceanography 5

EVS 4935C Water Resources10GLY 4791 Cartography and Geologic(45)
ANT 4340Economics of the Caribbean5CPO 3323 Government and Politics of the Caribbean

## OR

Campus Location: Tamiami Campus Only DEGREE: Bachelor of Science

This program provides a thorough scientific understanding of the basic sciences required for graduate study or a career in earth, marine, or atmospheric sciences.

## LOWER DIVISION PREPARATION:

Required Courses: 4 semester hours of general biology; 4 semester hours of physical geology or the equivalent; 4 semester hours of historical geology; mathematics (Calculus I and II); 15 quarter hours or the equivalent, including laboratory, of general physics; 14 quarter hours or the equivalent, including laboratory, of general chemistry.
Remarks: The mathematics, physics, and chemistry requirements may be taken at the University.
UPPER DIVISION PROGRAM:
Quarter Hours
Required Courses: a minimum of 55 quarter hours of earth science courses is required including at least 35 quarter hours of the following courses marked with an asterisk:
AST 3100 Modern Astronomy 5
GEO 3200C Physical Geography* 5
GLY 3322 Optical Mineralogy* 5
OCE 3014 Physical Oceanography* 5
MET 4701 Meteorology 5
GLY 4450 Geophysics 5
GLY $4315 \quad$ Igneous and Metamorphic Petrology* 5
GLY 4401 Structural Geology* 5
GLY 4650 Paleobiology* 5
GLY 4555 Sedimentology* 5
Other Required Courses:
GLY $4910 \quad$ Independent Study
GLY $4791 \quad$ Cartography and Geologic Surveying or
Electives: select courses to meet particular professional goals. 27
Suggestions:
Natural Sciences:
OCB 3010 Biological Oceanography 5
PCB 3033 Fundamentals of Ecology 5
OCB 5635 Marine Ecology 5
EVS 4935C Water Resources 5
EVS 4932 Energy Resources 5

Social Sciences:
ANT 4340
Cultures of the Caribbean
5
ECS 4433 Economics of the Caribbean 5
ECS 5025 Economic Problems of Emerging Nations 5
CPO 3323 Government and Politics of the Caribbean 5
CPO 4327 Topics in Caribbean Politics 5
90
Remarks: No $D$ grades will be allowed in the courses required for the major. This rule includes required courses outside the discipline.

## Minor in Earth Sciences

Required Courses: 30 quarter hours minimum; the following courses are recommended:

| GLY 3106 | Environmental Earth Science | 5 |
| :--- | :--- | :--- |
| GLY 3157 | Elements of Caribbean Geology | 5 |
| AST 3002 | Modern Astronomy | 5 |
| GEO 3200C | Physical Geography | 5 |
| OCE 3014 | Physical Oceanography | 5 |
| MET 4701 | Meteorology | 5 |
| GLY 4650 | Paleobiology | 5 |
| GLY 4791 | Cartography and Geologic Surveying | 5 |

## Certificate in Caribbean Studies

A student may earn a Certificate in Caribbean Studies by successfully completing the 30 quarter hours of social sciences coursework listed above for the Bachelor of Science program in earth sciences, or by completing six other Caribbean-related courses from at least two departments.

The social science major student in the Caribbean Certificate Program may elect up to five Caribbean-related earth science courses toward the six courses required for the Certificate.

Recommended Courses: in sequence:
GLY 3157 Elements of Caribbean Geology 5
GLY $4190 \quad$ Caribbean Earth Sciences Seminar 5
GLY 4792 Caribbean Mineral Resources Field Trip 5

## COOPERATIVE EDUCATION

Students seeking the baccalaureate degree in Earth Sciences may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends several quarters fully employed in industry or a government agency. For further information consult the Department of Physical Sciences or the Department of Cooperative Education.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

AST-Astronomy; EAS-Earth Science; EVS-Environmental Science; GEO-Geography-Systematic; GLY-Geology; ISC-Interdisciplinary Natural Science; MET-Meteorology; OCE-Oceanography; OCG-Oceanography-Geological; OCP-Oceanography-Physical.

## AST 3100 MODERN ASTRONOMY

The structure and evolution of our solar system is studied, with particular emphasis on physical concepts. Topics will include astronomical coordinate systems, celestial mechanics, the earth's motion, and a description of our solar system. Prerequisites: College algebra and geometry.

## AST 3213 MODERN ASTROPHYSICS

An introduction to the structure of stars and galaxies and the evolution of the universe as a whole. Topics will include atomic spectra, stellar classifications, galactic structure, and cosmology. Prerequisites: PHY 3040C-3042C, Calculus I and II and AST 3100.

## EAS 4911 INDEPENDENT STUDY

Individual research under the supervision of a professor in the student's field of specialization or interest. Subject may deal with laboratory work, field, and/or bibliographical work. Field research in the Caribbean is encouraged. Variable credit to a maximum of 10 credits. Prerequisite: Permission of the student's advisor. processes. Construction problems, sewers, waste disposal, dams, ground water, and terrain evaluation in relation to the nature of the underlying substratum. Principles illustrated from South Florida and the Caribbean region in particular. Study of the geologic lactors involved in future development and growth of these areas, and conservation methods in relation to the geology ol these areas. Prerequisites: GLY 3106 , GEO 3200 C , and a sound background in mathematics, physics, and chemistry.
EVS 4164 L APPLIED ENVIRONMENTAL GEOLOGY LABORATORY
Analysis of physical and physico-chemical geologic processes. Identification, control, and correction techniques of landslides, rocklall, subsidence, quicksand, piping and flooding hazards. Corequisite: EVS 4164.

GEO 3200C PHYSICAL GEOGRAPHY
Survey ol the physical environment relevant to studies in regional geography and earth sciences. Natural evolution of landforms, and the interacting processes responsible for these leatures. Environmental modifications and deteriorations caused by human interaction. Effects of these changes: socio-economic impacts and geographic problems. Case studies illustrated from South Florida and the Caribbean region.

## GEO 3122L PHYSICAL GEOGRAPHY LAB

The use of maps as means of depicting the earth's morphology. The processes responsible for the landlorms, and methods to infer the subsurface structure of the earth's crust. Photogrammetry and use of aerial photographs in land evaluation, mapping, and as map supplements. Optional for non-science majors. Corequisite ol GEO 3200 for science majors.
GEO 3510 EARTH RESOURCES
Distribution of mineral resources, with special emphasis on metallic deposits. Problems of exploitation and depletion on a world-wide scale; environmental, social, economic, and political impacts; international control and trade. One or two field trips to a mining region expected. No prerequisites.
GEO 4114 DYNAMIC GEOGRAPHY
Theories and techniques used in modern geographic analyses. Simple correlation and regression. Multiple regression. Surlaces and regions, and the analysis of variance. Non parametric statistics. Factorial analysis and spatial allocation models. Examples emphasize aspects of economic, urban, transportation and social geography in South Florida and the Caribbean area. Prerequisites: GEO 3200 and a sound background in mathematics.
GLY 3106 ENVIRONMENTAL EARTH SCIENCES
A course for non-science majors and those desiring a cultural understanding of the earth sciences. Origin of the earth. Processes taking place in the earth's lithosphere, hydrosphere, and atmosphere which affect man in his environment. Earthquake prediction, pollution control, weather modification on global scales. No prerequisites.
GLY 3157 ELEMENTS OF CARIBBEAN GEOLOGY
A survey of the geology of the Caribbean and neighboring regions in view of current data and modern concepts of global tectonics. The course summarizes the important points of Caribbean and Central American geology in their relation to mineral and energy resources; natural environmental disasters, especially seismic zones; agriculture; and the geologic potentials for future development and industrialization.

## GLY 3215 MINERALOGY

Elementary crystallography; fundamentals of crystal chemistry and physical mineralogy. Classification of common economic and rock forming minerals; structure and classification of silicate minerals. Study of geometric and atomic crystal models and principles, and interpretation of $x$-ray diffraction and fluorescence techniques. Prerequisites: physical geology or equivalent and general chemistry.

## GLY 3215L MINERALOGY LABORATORY

Identification of more than 100 common economic and rock-forming minerals, based on their physical properties. Crystal symmetry, symmetry operations, crystallographic calculations, stereographic projects.
GLY 3322 OPTICAL MINERALOGY
Principles and use of the polarizing petrographic microscope. Optical properties of isotropic, uniaxial and biaxial minerals; solution of optical problems by use of stereographic projections. Prerequisites: GLY 3215 or equivalent.

## GLY 3322L OPTICAL MINERALOGY LABORATORY

Identilication of nonopaque minerals under the microscope, based on their optical and crystallographic properties, determined from oil immersion/permanent mount methods.

## GLY 3850 ENVIRONMENTAL GEOLOGY

The composition and structure of the earth, the internal and external forces acting upon it and the resulting surface teatures. Case studies and general principles illustrated from South Florida and Ihe Caribbean. Two lield trips expected. No prerequisites.

## GLY 3850L ENVIRONMENTAL GEOLOGY LABORATORY

Study of common rocks and minerals. Study of the various rocks found in South Florida and their environmental importance concerning the availability of fresh ground-water to the region. Study of contour and geologic maps. Optional for non-science majors. Corequisite of GLY 3850 for science majors.

Origin of the chemical elements of common rock-forming minerals. Atomic theory, bond theory, lattice types, the interaction of electromagnetic waves and solids. Crystal chemistry of common oxides, sulfides, and rock-forming minerals. Geochemical cycles presently operating in the earth's atmosphere, hydrosphere, and lithosphere. Case studies in the Caribbean. Prerequisites: Chemistry, physics, mathematics, and a sound background in the earth sciences.
GLY 4315 IGNEOUS AND METAMORPHIC PETROLOGY
Genesis, composition, and classification of igneous and metamorphic rocks. Includes studies of experımental solid-liquid phase equilibria and mıneral stabilittes ol silicate systems. Prerequisite: GLY 3322.
GLY 4315L IGNEOUS AND METAMORPHIC PETROLOGY LABORATORY
Lab techniques concern the description and identilication of igneous and metamorphic rocks in hand specimens and thin sections.
GLY 4401 STRUCTURAL GEOLOGY
Nature and origin of rock structures and deformations, primary structures, geometry and description of folds, faults, minor structures, cleavage, jointing, lineations, polyphase deformation and structural petrology. Topics in geotectonics and global tectonics with special reference to the Caribbean. Prerequisites: physical geology or equivalent, and a sound background in mathematics.
GLY 4401L STRUCTURAL GEOLOGY LABORATORY
Interpretation of geologic maps, folds, faults, outcrop patterns, and three points problems. Graphic resolutions with stereographic net and structural analysis.

## GLY 4450 GEOPHYSICS

A survey of the different principles and methods of measurements of the physical properties of the earth and the moon: seismic, magnetic, electrical, thermal and gravitational. The implications of the results in terms of the earth's structure, composition, evolution and present state. Case studies illustrated from recent geophysical data from the Caribbean area and Central America. Prerequisites: GLY 3106 and OCE 3014.

GLY 4555 SEDIMENTOLOGY
Sedimentary processes in the geological cycles, as illustrated in recent environments. Different groups of sedimentary rocks. Primary and secondary sedimentary structures. Physico-chemical properties and diagenetic processes. Analytical techniques applied to modern sedimentology of both loose and lithified sediments. Prerequisites: Physical Geology or equivalent; Mineralogy; Opical Mineralogy; Paleontology, and a sound background in mathematics and chemistry.

## GLY 4555L SEDIMENTOLOGY LABORATORY

Mechanical analyses, coloration techniques, and heavy mineral separation techniques. Macroscopic and microscopic study of sediments and rocks.

## GLY 4650 PALEOBIOLOGY

Development of life as traced through the fossil record. Survey of the main groups of animals commonly found as fossils. Theories of evolution and extinction. Study of the major microfossil groups used in biostratigraphic zonation, and as paleoecologic indicators. Prerequisites: physical and historical geology, general biology, or the instructor's permission.
GLY 4650L PALEOBIOLOGY LABORATORY
Microscopic study of foraminifera, radiolaria and the diatoms. Study of invertebrate fossils, and osteology of the vertebrates. Corequisite: GLY 4650.

## GLY 4730 MARINE GEOLOGY

Survey of the main physiographic provinces of the ocean floor. Modern theories concerning the evolution of the crust; continental draft, sea-floor spreading. Distribution and thickness of deep-sea sediments, and their relationship to the morphology and evolution of the crust. Deep-sea mineral resources. Marine geology of the Caribbean from recent data. Sea-bed assessment of mineral resources in the Caribbean and neighboring region. Prerequisites: OCE 3014, GLY 4555 or instructor's permission.

## GLY 4730 L MARINE GEOLOGY LABORATORY

Training in the analysis and interpretation of marine geophysical data. Corequisite: GLY 4730 .
GLY 4791 CARTOGRAPHY AND GEOLOGIC SURVEYING
A 3 -week course to be offered in the United States or in the Caribbean islands. Instruction and practice in methods of geological mapping using topographic base maps and aerial photographs or plane table. New prerequisite: GLY 4401 or equivalent. Open to majors only.
GLY 4792 CARIBBEAN MINERAL RESOURCES FIELD TRIP
A three-week field course in at least two Caribbean islands. Cursory review of the geologic lactors governing the occurrence, size, and economic value of mineral deposits. Emphasis is on bauxite, copper, and energy resources. Visit to selected regions of active exploitation and processing plants, as well as abandoned mines and potential sites of future exploitations. Prerequisite: GLY 3157, or instructor's permission.
GLY 5620 CARIBBEAN STRATIGRAPHIC MICROPALEONTOLOGY
Survey of the stratigraphy of biostratigraphic type-sections described in the Caribbean area. Deep-sea stratigraphy from both piston-cores and deep-sea drilling samples. Emphasis is placed on planktonic foraminitera and radiolaria species used as index-species in the equatorial-tropical biozonation typified in Cretaceous and Cenozoic Caribbean sediments. Paleobiogeographic and paleoecologic considerations. Considerable time will be devoted to the study and identification of specimens under the microscope. Prerequisite: GLY 4650, or the instructor's permission.
morphogy ecolor and distion pars.
ments, and their eltects on reel growth and distribution. Reef bioerosions. Coastal evolution in response to natural processes. On-site study of some similar emerged environments in the Caribbean islands. Economic importance of tropical shallow-marine environments in world fuel resources. Course includes extensive lield work both on land and underwater, and an individual field research project. Qualifications: Open to advanced undergraduate and graduate students in the earth and biological sciences or cognate fields.
GLY 5816C MINERAL DEPOSITS
Morphology and genetic processes involved in known occurrences of mineral deposits; structural factors governing their size, location and shape. Exploration, detection, and exploitation methods. Emphasis on known and potential mineral deposits of the Caribbean and neighbouring areas. Prerequisites: Physical Geology or equivalent, OCE 3014, GLY 3322, and chemistry.
GLY 5816L MINERAL DEPOSITS LABORATORY
Microscopic petrology and petrography of ore samples, and interpretation of geologic maps bearing on mineral deposits. Special emphasis on the Caribbean region. Corequisite: GLY 5816.
ISC 3949 , ISC 4949 COOPERATIVE EDUCATION IN PHYSICAL SCIENCES
One quarter of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student.

## MET 4301 DYNAMIC METEOROLOGY

Dynamical processes in the atmosphere. Meteorological thermodynamics and atmospheric statics. Scientific bases for modern quantitative and analytical meteorology. Variation of the wind and pressure fields in the vertical. Mechanism of pressure change; behavior of cyclones and anticyclones. Dynamic forecasting by numerical methods. Prerequisites: AST 3100, GEO 3200C, and MET 4701.

## MET 4701 METEOROLOGY

The earth's atmosphere and its physical properties. General circulation and thermal structure of the atmosphere on a global and local scale. Physics and dynamics of clouds. Weather analysis and forecasting including temperate and tropical areas, with emphasis on the Caribbean and neighbouring areas, birth place of major Atlantic tropical storms. Reading of weather maps, introduction to meteorologic instruments, transmission and plotting of meteorological data. Recommended preparation: AST 3100 , GEO 3200C, and competence in physics and calculus.
OCE 3014 PHYSICAL OCEANOGRAPHY
A survey of the ocean as a physico-chemical environment. Properties of sea water, and the influence of sea-air interactions on the ocean structure. Water masses and oceanic circulation patterns. Diffusion and advection and their relation to oceanic properties. Heat budget and climatic control. Impact of oceanic properties on man's environment and economy. Case study of a mediterranean sea illustrated by the Caribbean Sea. One field trip to be expected.

OCG 6105C ADVANCED MARINE GEOLOGY
Application of geophysical and geological data to the interpretation of the earth's crust under the oceans, including the data provided by deep-sea drilling, dredging, piston-coring, gravity magnetism, and seismicity. Special emphasis will be given to the genesis and evolution of Atlantic and Caribbean margins, and their potential for oil resources. Prerequisites: GLY 4730, or permission of instructor.

OCG 6105L ADVANCED MARINE GEOLOGY LABORATORY
Interpretation of geophysical data pertaining to the structure and composition of selected Allantic and Caribbean margins.

## OCG 6280 MARINE SEDIMENTARY PETROLOGY

Analysis of the genesis, distribution pattern, physical and chemical properties of marine sedimentary lacies, with emphasis on deep-sea sediments. Topics include deep-sea diagenetic and lithification processes, their geochemical relationship in time and space. Prerequisite: GLY 4555, or permission of instructor.

## OCG 6280L MARINE SEDIMENTARY PETROLOGY LABORATORY <br> Microscopic and geochemical analyses of marine sedimentary facies.

OCG 6453C HYDROCHEMICAL REACTIONS IN COASTAL AQUIFERS
A systematic study of the distribution and origin of the main rock-forming elements, with special emphasis on the geochemical factors involved in the concentration of minor elements in hydrogeological systems of coastal aquilers. Prerequisites: Gen. Chemistry \& GLY 3850 or equivalent.

## OCG 6453L HYDROCHEMICAL REACTIONS IN COASTAL AQUIFERS LABORATORY

Ouantitative and qualitative geochemical methods ol water analyses, and their application to water quality monitoring and conservation.

## OCP 5291C COASTAL PROCESSES

Dynamics of estuarine and nearshore circulation. Advective and diffusive processes. Natural and maninduced supply of particulate matter to the coastal region, and the longshore and olfshore dispersal of this matter. Waves, tides, periodic sea level changes and their eflects on coastal erosion and sedimentation. Coastal management. Prerequisites: OCE 3014 and EVS 4108 or permission of instructor.

Working methods, including remote sensing techniques and use of oceanographic instruments, in the sludy of coastal processes.

## ENVIRONMENTAL STUDIES

This is an interdisciplinary program, involving eight departments (Physical Sciences, Biological Sciences, Psychology, Political Science, Sociology/Anthropology, International Relations, Philosophy/Religion, and Economics), which prepares students to work in professions with an environmental emphasis. Students may choose either a Bachelor of Arts (nonscience) program, or a Bachelor of Science (science) program. Degrees are awarded by the Department of Physical Sciences. For a full description of the degree programs, participating faculty and course offerings, see the separate listing under ENVIRONMENTAL STUDIES.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

EVR-Environmental Studies; ISC—Interdisciplinary Natural Science; MET—Meteorology.

## EVR 3011 ENVIRONMENTAL SCIENCEI

A course for non-science majors, offering an introduction to the fundamental principles and concepts of ecology, and to air pollution and water resources. No prerequisites,

## EVR 3012 ENVIRONMENTAL SCIENCE II

A course for non-science majors, offering an introduction to energy resources and conservation, agricultural pollution, noise pollution, and solid waste problems.
EVR 3013 ENVIRONMENTAL SCIENCE III
A course for non-science majors, offering an introduction to the ecology ol South Florida through lectures and a series of tield trips into several unique ecosystems, such as the Everglades, hardwood hammocks, and coastal regions. The course also deals with natural resource conservation, wildlife management and ecology, and population dynamics.

## EVR 3931 TOPICS IN ENVIRONMENTAL STUDIES

An intensive analysis of several current environmental topics. Recommended for primary and secondary school teachers.
EVR 4021 SURVEY OF ENVIRONMENTAL PROBLEMSI
An in-depth study of four or five environmental problems of current interest and continuing significance. The course requires competency at the college introductory level in at least three of the following: biology, chemistry, geology, physics.
EVR 4022 SURVEY OF ENVIRONMENTAL PROBLEMS II
(5) (S)

A continuation of EVR 4021.
EVR 4211 WATER RESOURCES
A seminar dealing with various aspects of water use, water pollution problems, chemistry and ecology of South Florida's waters. General biology is a prerequisite. General chemistry and general ecology are recommended.
EVR 4231 AIR RESOURCES
Common air pollutants - their sources and methods of control. Different legislative and administrative approaches will be sludied. Prerequisite: General Chemistry.
EVR 4311 ENERGY RESOURCES
Seminar dealing with power and energy production in modern society, fundamental energy relationships of industrial and domestic processes.
EVR 4905 RESEARCH AND INDEPENDENT STUDY
The student works with a professor on a research project.

## EVR 4920 ENVIRONMENTAL COLLOQUIUM

An exploration of contemporary ideas on environmental issues. The course brings together faculty and students in a seminar format. Each week a subject will be presented by a faculty member or student and an open discussion will follow.
EVR 5061 SOUTH FLORIDA ECOLOGY: FIELD STUDIES
(3) $(W, S)$

An introduction to the ecology of South Florida through a series of field trips into several unique ecosystems, such as the Everglades, hardwood hammocks, and coastal regions. No science background required.

## EVR 5141 ENVIRONMENTAL NUCLEAR CHEMISTRY

Nuclear reactions and the nature of radioactivity. Properties and uses of radioactive isotopes, fission, and fusion. Introduction to reactor technology. Consent of instructor required.

## EVR 5236 AIR POLLUTION DYNAMICS

A course designed to give an understanding of the fates of atmospheric pollutants. Scavenging processes in the atmosphere. Radiation. Residence times. Chemical reactions. Global transport process. Point source dispersion and modeling calculations. Prerequisite: EVS 3360 or EVR 4231.

## EVR 5361 TOPICS IN ENVIRONMENTAL STUDIES

An analysis of several current environmental topics. Recommended for primary and secondary school teachers.

## PHYSICS

## Campus Location: Tamiami Campus only

DEGREE: Bachelor of Science (*Students interested in teacher certification see note on page 242.)
LOWER DIVISION PREPARATION:
Required Courses: part of the 90 quarter hours ( 60 semester hours) of lower division coursework should be in the sciences.
Recommended Courses: algebra and trigonometry; chemistry (10 quarter hours); physics with or without calculus; calculus ( 10 quarter hours). These courses may be taken at the University, if not completed at the lower division.

## UPPER DIVISION PROGRAM:

Major:

Quarter Hours

Required Courses:
PHY $3123 \quad$ Modern Physics 5
PHY 4323, PHY 4324 Electromagnetism 10
PHY 4221 Classical Mechanics 5
PHY 4526 Statistical Thermodynamics 5
or
PHY 3503 Thermodynamics 5
*PHY 4810L or PHY 4811L or PHY 4812L Senior Physics Laboratory 5
PHY 4604 Quantum Mechanics 5
Electives in experimental or theoretical physics 15
Math elective beyond 10 quarter hours of calculus 5
Electives:

Must include PHY 3040C-3041C-3042C and Laboratory if the equivalent is not taken in the lower division.
Remarks: No D grades will be allowed in the courses required for the major. This rule includes required courses outside the discipline.
Minor in Physics: Two minors are available to students. Track A is designed for the student who plans to take the introductory physics sequence PHY 3040C-3041C-3042C or its equivalent. Track $B$ is designed for the student who plans to take the introductory sequence PHY 3050C-3051C or its equivalent.

## Quarter Hours

Track A:
PHY 3040C-PHY 3041C-PHY 3042C Physics with Calculus 15
PHY 3040L Junior Physics Laboratory 2
PHY 3123 Modern Physics 5
Additional approved courses $8^{*}$Track B:
PHY 3050C-PHY 3051C Physics without Calculus 10
PHY 3040L Junior Physics Laboratory 2
PHY 3123 Modern Physics 5
Additional approved courses $15^{\circ}$
*Chosen with approval of physics advisor

## MASTER OF SCIENCE IN PHYSICS

The Department of Physical Sciences at Florida International University participates jointly with the Department of Physics at Florida Atlantic University in offering the M.S. in Physics. Students entering the program must have a B.S. (or equivalent), and must satisfy the requirements for admission to the FAU master's program and the FAU requirements for the M.S. in Physics. The degree is awarded by Florida Atlantic University.

## COOPERATIVE EDUCATION

Students seeking the baccalaureate degree in Physics may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends several quarters fully employed in an industrial or governmental physics laboratory. For further information consult the Department of Physical Sciences or the Department of Cooperative Education.

## COURSE DESCRIPTIONS

DEFINITION OF PREFIXES<br>AST-Astronomy; ISC-Interdisciplinary Natural Science; PHS—Physics-Specialized; PHY—Physics; PSC-Physical Sciences.

AST 3025L OBSERVATIONAL ASTRONOMY
(2 Variable) (F)
A study of astronomical objects visible from Miami: stars and their constellations, planets, binary stars, star clusters, variable stars, nebulae and galaxies will be discussed and observed.
AST 3050 MODERN ASTROPHYSICS
(5) (W)

An introduction to the structure of stars and galaxies and the evolution of the universe as a whole. Topics will include atomic spectra, stellar classifications, galactic structure and cosmology. Prerequisites: PHY $3040 \mathrm{C}-3042 \mathrm{C}$, Calculus I and II, and AST 3002.
AST 3100 MODERN ASTRONOMY
(5) (F)

The structure and evolution of our solar system is studied with particular emphasis on physical concepts. Topics will include astronomical coordinate systems, celestial mechanics, the earth's motions, and a description of the solar system. Prerequisites: college algebra and geometry.
ISC 3949 , ISC 4949 COOPERATIVE EDUCATION IN PHYSICAL SCIENCE
(5-5)
One quarter of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student.
PHS 4303 NUCLEAR PHYSICS
(5) (S)

A treatment of the current state of the nuclear theory problem and a discussion of modern experimental methods.
PHS 5125 SEMINAR IN THEORETICAL PHYSICS
The theoretical foundation of classical mechanics, relativity, fields, quantum mechanics, group theory and relativity.
PHS 5400 SOLID STATE PHYSICS
(5) (S)

Crystalline form of solids, lattice dynamics, metals, insulators, semi-conductors, and dielectric materials. Prerequisites: general chemistry, general physics, and mathematics through Calculus II.
PHY 3033 PHYSICAL ASPECTS OF UNSOLVED MYSTERIES
Topics peripheral to orthodox science, such as UFO's, attempts to communicate with alien beings, the theories of Velikovsky, Stonehenge, and psychic phenomena, are presented for discussion. Emphasis is on physical ideas, scientific reasoning, and the interplay between theory and experiment.
PHY 3040C PHY 3041C PHY 3042C PHYSICS WITH CALCULUS
(5-5-5)(F,W,S; W,S,SS)
Basic physics sequence for students that have had mathematics through calculus. PHY 3040C will cover kinematics, Newton's laws, conservation of linear and angular momentum, and gravitation. PHY 3041C continues with fluid dynamics, sound, thermodynamics, and optics. PHY 3042C covers electric fields, magnetic fields, and electromagnetic waves. Calculus may be taken concurrently.

Recent developments in physics are discussed. Subject matter includes: review of classical physics, special relativity, lour-vectors, particle aspects ol waves, wave aspects of particles, the hydrogen atom, many electron atoms, nuclear instrumentation, nuclear structure, nuclear reactions, elementary particles, introduction to quantum mechanics, and solid state physics.
PHY 3424 OPTICS
(5) (W)

General formulation of geometrical optics including matrix techniques, interference phenomena, and the theory of Fraunholer and Fresnel diffraction, will be among the topics covered.
PHY 3503/CHM 3410 THERMODYNAMICS
(5) (F)

Same as CHM 3410. Fundamental principles of thermodynamics, the first, second, and third laws, free energy, entropy, the chemical potential, phase rule and its applications. The tirst in a three-quarter physical chemistry sequence. Prerequisites: general chemistry, general physics, and mathematics through Calculus II. Calculus II may be taken concurrently.

## PHY 3722C ELECTRONICS

(5) (SS)

Including solid state theory and the theory of circuits, circuit operation and design in lecture and laboratory sessions.
PHY 4221 SEMINAR IN CLASSICAL MECHANICS
(5) (W)

Newtonian mechanics including statics of particles, cables and rigid bodies, dynamics of particles and groups of particles in three dimensions, and motion of a rigid body in a plane. A background in general physics is advisable.
PHY4323-PHY 4324 SEMINAR IN ELECTROMAGNETISM
(5-5) (F,W)
The theory of electromagnetic lields and waves is developed from basic principles. Vector calculus, Coulomb's law, Gauss's Law, electrostatic potential, dielectrics, solutions to LaPlace's and Poisson's equations, magnetic induction, vector potential, magnetic scalar potential, Faraday's law, magnetic materials. Maxwell's equations and propagation of waves in space and various media are discussed. Prerequisite: Calculus.

## PHY 4526/CHM 4460 STATISTICAL THERMODYNAMICS

(5) (F)

Review of the fundamental laws of thermodynamics applied to simple systems. Elementary kinetic theory of gases applied to diffusion, viscosity, thermal and electrical conductivity. Boltzmann, Fermi-Dirac and Bose-Einstein distribution functions applied in the Bolizmann limit to the calculation of thermodynamic variables. Prerequisites: general chemistry, general physics, and mathematics through Calculus II.

## PHY 4604 QUANTUM MECHANICS I

An introduction to the basic postulates of quantum mechanics. Solutions to the time independent Schrodinger equation are obtained for particles in one dimensional potential wells, the hydrogen atom solutions and the harmonic oscillator problem. Prerequisites: general chemistry, general physics, and mathematics through Calculus II.

## PHY 4750 LINTRODUCTION TO SCIENTIFIC INSTRUMENTATION

(5) (W)

The student learns to set up and operate such standard pieces of laboratory apparatus as bridges, amplifiers, oscilloscopes, frequency counters, flowmeters, and thermocouple circuits utilizing chart recorders. A background in general physics is recommended

## PHY 4810L, PHY 4811L, PHY 4812L SENIOR PHYSICS LABORATORY

(5-5-5) (F,W,S)
Advanced laboratory topics are treated. Modern physics laboratory equipment is used, and the student is introduced to current laboratory practice.
PHY 4905, PHY 4906, PHY 4907 INDEPENDENT STUDY
(VAR) (F,W,S,SS)
The student will work under the supervision of a faculty member on subject material of mutual interest.
PHY 4936, PHY 4937, PHY 4938 SPECIAL TOPICS
(VAR)
In-depth study of topics of special physics interest.
PHY 5250 PHYSICS OF FLUIDS
(5) (S)

Introduction to the constitutive equations of fluid mechanics. Topics in sleady compressible and incompressible flows. Prerequisites: Classical Mechanics and Thermodynamics, or consent of instructor.

## PHY 5624 INTRODUCTION TO PHYSICS RESEARCH

(5-5-5) (F,W,S,SS)
Students are introduced to research techniques by assisting with an original investigation in experimental or theoretical physics.
PHY 5910 SEMINAR IN ADVANCED THEORETICAL MECHANICS
(5) (SS)

A continuation course in classical mechanics which leads naturally into quantum mechanics. Topics to be covered will include Lagrangian and Hamiltonian methods, variational techniques. Poisson brackets, symmetries, algebra of quantum mechanics, representations, Dirac ladder operations, spin, and the hydrogen atom.
PHY 5936, PHY 5937, PHY 5938 SEMINAR IN SPECIAL TOPICS
(VAR)
The student will work under the supervision of a laculty member on subject material of mutual interest.
PSC 3001 CONCEPTS IN PHYSICS
(5) (S)

Sell contaned course for liberal arts majors covering the major concepts in physics; necessary concepts of elementary algebra and geometry will be covered in the beginning of the course and used to discuss Newtonian, relativistic, and quantum mechanics and their applications to atoms, stars and the universe as a whole. Throughout the course the dynamic nature of scientific laws will be stressed as new, more general laws are lirst hypothesized and then used to predict and eventually cross new frontiers of physics.

# POLITICAL SCIENCE MAJOR 

Joyce Lilie, Associate Professor and Chairperson
Charles Chai, Associate Professor
Joel Gottlieb, Associate Professor
Brian Nelson, Associate Professor

Mary Volcansek-Clark, Associate Professor Judson De Cew, Assistant Professor Mark Rosenberg, Assistant Professor John Stack, Assistant Professor

A major in political science provides students with the opportunity to acquire a broad education that will equip them to adapt to a wide variety of careers. The program for majors is designed to encourage the analysis of theories, institutions, and processes of political systems in the context provided by the social sciences; to stimulate a grasp of the broad sweep of political science as a discipline; to develop a continuing and responsible interest in political activity and public affairs; to provide the opportunity to acquire a fundamental understanding of political science as a basis for citizenship, a career in government, or professional study and service - and to stimulate the qualified student's interest in graduate study in political science.
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Recommended Courses: American government, anthropology, ecology, economics, foreign language, history, international relations, statistics, psychology, sociology, and state and local government.
UPPER DIVISION PROGRAM:
Major:

## Quarter Hours

Breadth Requirements:
One 5 credit course in each of the following fields:

1. American Politics (AP)-this breadth area can be met only by one of the following courses:
PUP 3004 Theory and Analysis of Public Policy
PAD 3003 Politics of Public Burraucracy
POS 3424 The Legislative Process
POS 3153 Urban Politics
POS 3453 Political Parties
POS 4413 The Presidency
POS 4044 Government and Politics of the U.S.
2. Judicial Politics (JP)
3. Comparative Politics (CP)
4. International Politics (IP)
5. Political Theory and Methodology (PT)

Depth Requirements
Five courses from any one of the following areas:
American/Judicial Politics
Comparative/International Politics
Political Theory
Remarks
One course from Politics and the Arts may be substituted for one course in the depth requirement.

Campus Location: Tamiami and North Miami Campus
Minor in Political Science:
Prescribed Courses

1. No required courses
2. A minimum of 25 credits in political science
3. A maximum of 5 credits each in political science internships and independent studies may apply to the 25 -credit requirement.
PRE-LAW STUDENTS - The Department of Political Science recognizes the interests and needs of the political science major who plans to attend law school. The basic skills important to a pre-law student include: (1) thinking logically, (2) reading intelligently, and (3) expressing oneself clearly. These skills are developed in any discipline or field. Beyond these basic skills, the department encourages the student to acquire a broad background in political science, rather than to select only courses which deal with public law. Thus the requirements for the major allow the pre-law student to develop a wide comprehension of five major areas within political science and then to achieve greater depth of understanding on one broad area. For most pre-law students, that area may be American and judicial politics. The Department will counsel a student on pre-law school concerns and preparation, as an integral part of the Department's overall advising program. In addition, special opportunities will be available to a student who is interested in participating in judicial internships.

Public-Affairs Internship - The Department provides the student with opportunities for work-study experiences in governmental and non-governmental agencies. Five categories of internships are available to students: (1) judicial internships, (2) administrative internships, (3) legislative internships, (4) urban internships, and (5) international internships. Standards for enrollment as an intern student include:

1. Enrollment is by permission of instructor only. A student wishing to enroll as a public affairs intern should consult with the appropriate faculty member and receive written permission to enroll. Ordinarily, specified courses must be taken prior to or concurrent with the internship.
2. A political science major may count a maximum of 10 credit hours in internships toward his major. Five additional hours may be counted as electives for a maximum of 15 credit hours in internship in political science.
3. All public affairs internships in policial science will be on a "Credit - No Credit" basis. For further information, contact the Department of Political Science.
Evaluation of Student Records and Transcripts - As a general rule, students will receive transfer credits for junior and senior level courses in political science with a grade of $C$ or better. These courses may then be applied to the 50 credit hour requirement for majors in political science.

Major Advising Program: All new majors meet with the Department Chairperson prior to being assigned an advisor. All advisors are members of the political science faculty, and meet with students on a regular basis to discuss program design and scheduling matters.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

CPO-Comparative Politics; INR—International Relations; PAD—Public Administration; POS—Political Science; POT-Political Theory; PUP-Public Policy; SOC-Sociology.

This course introduces students to research strategies; concepts, and theories of comparative politics. There will be a focus on the three predominant types of modern political systems (democracy, authoritarianism, and totalitarianism), followed by an examination of the current theoretical approaches to sludying cross-national political behavior. (CP)
CPO 3303 GOVERNMENT AND POLITICS OF SOUTH AMERICA
A cross-national discussion of the political systems and cultures of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of the military, and to the problem of violence. Designed to give the student an overview of the poliltical life of the nations with whom we share this hemisphere. (CP)

This course analyzes the multiple structures, processes, and groups which are relevant to an understanding of Latin American political economy. Ol special interest are the political impacts of land and wealth inequality and economic dependency. The dynamics ol Latın American politics are considered, with an emphasis on the role ol the military and the church. Alternate strategies lor modernizing the region are considered. (IP. PT)
CPO 3323 GOVERNMENT AND POLITICS OF THE CARIBBEAN
Studies the political system of the major British, French, Dutch, and Spanish areas in the Caribbean basin. Attention is locused on such lactors as political party democracies in a nonindustrial setting. The paradoxes between modernity and tradition throughout the developing Caribbean, and the relationship between politics, economics, and culture are discussed. The student is helped to understand the dynamics ol change in an important area ol the world and to compare those dynamics with change in his own country. (CP)
CPO 3333 GOVERNMENT AND POLITICS OF CENTRAL AMERICA
This course analyzes the historical and contemporary political dynamics of the five countries of Central America. Special attention is given to problems of development and modernization within the context of the region's economic dependence on the United States. Special attention is given to the problem of political restraints on the modernization process and to those regional arrangements which have been created to solve the area's problems. The student will develop a better understanding of a region which has close ties to the United States. (CP)

## CPO 3513 GOVERNMENT AND POLITICS OF CHINA

An intensive examination of the major political institutions of China. A critical analysis of changing aspects of traditional relationships in Chinese political culture, and major reform movements in contemporary Chinese politics. (CP)
CPO 3514 GOVERNMENT AND POLITICS OF KOREA
An intensive examination of the major political institutions of South and North Korea. A critical analysis of changing aspects of traditional relations in Korean political culture and major reform movements in contemporary Korea. (CP)
CPO 3553 GOVERNMENT AND POLITICS OF JAPAN
An intensive examination of the major political institutions of Japan. A critical analysis of changing aspects of traditional relations in Japanese political culture and major reform movements in contemporary Japanese politics. (CP)
CPO 3643 GOVERNMENT AND POLITICS OF THE SOVIET UNION AND EASTERN EUROPE
An intensive examination of the political structures and institutions of the Soviet Union and East European Communist states. Particular attention is paid to the historical and cultural underpinnings of the Soviet regime. The role of Marxist-Leninist idealogy in shaping policy processes and content is given careful analysis. (CP)
CPO 4005 TOPICS IN COMPARATIVE POLITICS
An intensive examination of selected political topics from a cross-national point of view. The subjects will vary, depending upon the desire of both students and laculty. Allows the student to choose topics of particular interest to him or her
CPO 4034 THE POLITICS OF DEVELOPMENT AND UNDERDEVELOPMENT
This course is an analysis of the causes of development and underdevelopment in Third and Fourth World countries. It includes an analysis of major theoretical approaches to understanding development problems, as well as an analysis of the roles of major national and non-national actors. (CP/IP)

The purpose of this course is to identify the conceptual and empirical characteristics of authoritarian regimes. An ideal typical authoritarian regime will be established, followed by case study analyses of modern authoritarian systems, like those of Brazil, Mexico, and Portugal. The course is designed to analyze the circumstances giving rise to non-totalitarian modern dictatorships, their political dynamics and their survival capability. (CP)

## CPO 4103 GOVERNMENT AND POLITICS OF WESTERN EUROPE

Studies the political systems of the major European countries on a comparative basis. Attention is focused on such factors as political party systems, the cabinet form of government, and the politics of the Common Market. Considers the implications of the impact of mass society on these nations. Enables the student to better understand the nations which have supplied many of the theoretical foundations of modern politics. (CP)

## CPO 4006 COMPARATIVE FOREIGN POLICY

governmental actors. An examınation of the nation-state system. Attention is given to the use of force in international allairs, as well as those organizations, such as the United Nations, which have an international dimension. The course will aid the student in understanding the complexities of world politics. (IP)
INR 3403 INTERNATIONAL LAW
The law of nations, including the laws of war. Includes a discussion of the development of legal norms applicable to the international arena, from both Western and non-Western perspectives. Examines the emerging body of transnational law in social, economic, and technological areas of international relations. Enables the student to appreciate the problems involved in structuring conflict in international relations. (IP, JP)
INR 3502 INTERNATIONAL ORGANIZATIONS
An analysis of the factors and problems involved in administering change on a transnational basis. Stress is placed on the difliculty of applying legal norms to the international arena. Attention is given to those organizations, especially the United Nations, which are entrusted with implementing international agreements. Enables the student to understand the dilficulties involved in maintaining world peace. (IP)

## INR 3603 THEORIES OF WORLD POLITICS

An examination of the principal theoretical approaches to the study of world politics. This course surveys traditional, behavioral, and transnational frameworks. The course is designed to provide the student with an analytical basis for evaluating actors, institutions, and processes. (IP, PT)
INR 4084 ETHNIC CONFLICT IN TRANSNATIONAL POLITICS
This course examines the political dimensions of ethnic conflict from a comparative perspective. It evaluates the dynamics of ethnic conflict in Western Europe, Africa, Latin America, and the United States, through a series ol case studies. (IP)
INR 4102 AMERICAN FOREIGN POLICY
An examination of the legal, administrative, and political structure by which American foreign policies are formulated and implemented. Includes a discussion of the objectives and consequences of United States foreign policy in selected regional, social-economic, and ideological areas. Enables the student to understand the procedures by which foreign policy is made and implemented in the United States. (IP, AP)

## INR 4244 LATIN AMERICA IN WORLD POLITICS

This course will be primarily concerned with Latin America's role in the world political system. Of special interest will be the impact of the North-South split on Latin America, and in particular Latin America's relationship to the United States. Key issues of international politics concerning Latin America, including the Panama Canal, will be selected lor study. (CP, IP)

## INR 4407 POLITICAL FOUNDATIONS OF INTERNATIONAL LAW

An examination of the interaction between politics and international law, with particular emphasis on such interaction during the present century. The role of international institutions in the modifying of existing international law concepts and the developing of such concepts is also examined. (IP,JP)
INR 4931 TOPICS IN INTERNATIONAL POLITICS
An intensive examination ol selected topics with an international dimension. Subjects will vary, depending upon the desires of both students and faculty. Allows the student to choose topics ol particular interest to him or her. (IP)
INR 4942 INTERNATIONAL INTERNSHIP
An opportunity tor the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between student and advisor.
INR 5414 TOPICS IN INTERNATIONAL LAW
(VAR)
An intensive examination of selected topics in international law. Subjects will vary (including, for instance, the political dimension of international law) depending upon the desires of both students and faculty. Allows the student to choose topics of particular interest to him or her.

## INR 6007 SEMINAR IN INTERNATIONAL POLITICS

PAD 3003 POLITICS OF PUBLIC BUREAUCRACY
An introduction to the political environment of administrative decision-making in public agencies. Special emphasis is placed upon the politics of budgeting, personnel management, organizational requirements, and policy making. (AP)

## PAD 3803 URBAN GOVERNMENT AND ADMINISTRATION

A study of the organization, administrative decision-making, and process of urban government; interaction with the political process. This course attempts to provide students with an understanding of the basic structure of urban government and administrative decision-making processes. The interaction of bureaucracy with political parties, interest groups, and voluntary citizen association groups will be examined. (AP)
PAD 4944 ADMINISTRATIVE INTERNSHIP
(VAR)
An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between student and advisor.

POS 3001 FOUNDATIONS OF POLITICAL SCIENCE
Introduces the student to the major lields of political science. Attention is given to the concepts, definitions, and terminology used in the discipline. Intended lor the non-major. Elective credit only for political science majors.

POS 3153 URBAN POLITICS
An examinatıon of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is placed on how urban problems are identilied; and the way proposed solutions are
formulated, legitimized, and admınıstered by urban policy-makıng processes. Includes a dıscussion of urban political culture. Enables the student to understand major problems conlronting communities in urban areas. (AP)
POS 3283 THE JUDICIAL PROCESS
An introduction to the study of public law Examines the relationship between politics and judicial structure and process. Emphasizes the judicial system as a particular kind of policymaking system, and evaluates its strengths and weaknesses from a policy-making perspective. (JP)
POS 3424 THE LEGISLATIVE PROCESS
Examines the context and process of legislative decision-making, including the impact of elections, groups, bureaucracies and the norms of legislative behavior. Evaluates legislatures in light of various theories of representation and conllict-management. (AP)
POS 3703 METHODS OF POLICICAL ANALYSIS
An introduction to the principal concepts and techniques of data collection and organization in political science. Includes practical exercise in data collection and organization. Highly recommented for those planning graduate study. (PT)
POS 3122 STATE GOVERNMENT AND POLITICS
A sludy of the polifical processes, structure, and development of state systems. This course attempis to prove the student with an understanding of the basic structure of state government and political processes. (AP)
POS 3453 POLITICAL PARTIES
Studies the internal structure, political functions, and behavior of modern political parties. Attention is given to the relationships between political parties and various economic, military, ethnic, and regional interests. Enables the student to understand the problems of expressing and structuring political demands to facilitate or obstruct governmental decision-making. (AP)

## POS 3603 CONSTITUTIONAL LAW: POWERS

An examination of the basic principles of American government, as defined through constitutional law. Focus will be on the nature of the union, federalism, national government powers, separation of powers, state government powers, and powers of the respective branches of government. (JP)
POS 3604 CONSTITUTIONAL LAW: LIMITATIONS
An examination of the limitations on government as defined by the Supreme Court through consitutional law. Focus will be on the limitations of government with respect to the rights of the individual, of groups, and of the states. Particular attention will be paid to civil rights, civil liberties, the rights of the accused, political rights, and economic liberties. (JP)
POS 4044 GOVERNMENT AND POLITICS OF THE UNITED STATES
An examination of the origin and development, structure and operation of the Government of the United States, with an emphasis on the characteristics and polifical consequences of federalism. Allows the student to develop a better understanding of the political system in which he or she lives. (AP)
POS 4145 URBAN POLITICAL LEADERSHIP
A theoretical analysis and interpretation of urban political leadership, with special emphasis on the strucfure of political power and the decision-making process. This course attempts to provide sfudents with an understanding of the basic structure of urban political leadership. The attitudes and values of urban political elites will also be examined. (AP)

## POS 4147 POLITICS OF URBAN JEWISH LEADERSHIP

A study of the leadership structure of the Jewish community, with special focus upon the Jewish elite integration process within the community power structure. The course attempts to provide students with an understanding of the nature of Jewish leadership structure and role of Jewish leadership in the community social and political system. (AP)
POS 4154 TOPICS IN URBAN POLITICS AND POLICY
An examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is on the ways in which urban problems are identified and proposed solutions formulated, legitimized, and administered by urban policy-making processes. Includes a discussion of urban political culture. Enables the student to understand the major problems confronting communities in urban areas. (AP)
POS 4233 PUBLIC OPINION AND ELECTORAL BEHAVIOR
An examination of the social and psychological factors shaping public opinion and voting choice. Particular attention will be directed to the nature of trends and patterns in electoral results and systemic elements influencing such patterns. (AP)

## POS 4234 COMPARATIVE ELECTORAL BEHAVIOR

Public opinion, voting choice, and electoral patterns from a comparative and historical perspective. Attention will focus on Western Europe and Latin America. Contrasting North American trends and patterns will also be detailed. (CP)

## POS 4253 POLITICAL VIOLENCE AND REVOLUTION

An examination of major historical instances and modern expressions of political violence; discussion of revolution from a comparative perspective. Attention will focus on the social origin and political determinants of such events. (PT)

## POS 4284 JUDICIAL BEHAVIOR

An examination of various approaches, theories, and findings on the behavior of judicial actors, particularly as it relates to judicial decision-making. The locus of the course will be on judges, lawyers, prosecutors, and other relevant actors in the judicial process. (JP)

An examination of the various interpretations of the Presidency. Attention is directed to the role of the President in a technocratic society. Enables the student to understand one of the most visible political institutions. (AP)
POS 4463 INTEREST GROUP POLITICS
An examination of the various types of voluntary associations which seek to influence the political process. Special attention is given to the role of private power in a pluralist system. Enables the student to understand the ambivalent American attitude towards pressure groups and lobbying activities in the legislative and administrative arenas. (AP)

## POS 4493 POLITICS OF JUDICIAL ADMINISTRATION

This course is designed to examine the process of judicial administration, particularly from the political perspective. The politics of selecting judicial personnel, financing, budgeting, disposition of litigation, reorganization, and intergovernmental relations will be included. (JP)

## POS 4496 COMPARATIVE JUDICIAL POLITICS

An examination ol the various modes of dispute settlement and rule adjudication cross-culturally. Emphasis is on the similarities and differences of judicial behavior, judicial decision-making, judicial recruitment and judicial powers in cross-national analysis. (JP,CP)
POS 4905 INDEPENDENT STUDY out between the student and advisor.
POS 4944 JUDICIAL INTERNSHIPout between the student and advisor.

POS 5606 TOPICS IN PUBLIC LAW
An intensive examination of selected topics in the field of public law. The subjects will vary, depending upon the desires of students and laculty.
POS 5909 INDEPENDENT STUDY (VAR)
By arrangement with instructor.
POS 5934 TOPICS IN POLITICS
Subject matter varies according to instructor.
POS 6146 SEMINAR IN URBAN POLITICS

## POS 6934 TOPICS IN POLITICS

A study of the major political philosophers ! the ancient and medieval periods. Primary emphasis is given
to the Greek experience. The nature of political theory as a tradition of discourse is examined. (PT)
An analysis of the thought of the great political thinkers since Machiavelli, culminating with the nineteenth century theorists. Basic themes and ideas common to all these political theorists will be discussed in detail. The problem of "modernity" will receive special attention. (PT)

## POT 3064 CONTEMPORARY POLITICAL THOERY

An overview of the major conceptual frameworks used by political theorists to describe, explain, and evaluate political behavior and processes. Stress is placed on political theory, not only as a basis for inquiry but also as a base for political action. This course enables the student to develop analytical abilities with which to interpret the political events of his or her time. (PT)

POT 4055 MODERN POLITICAL THEORY II
An analysis of the thought of the great political thinkers of the late eighteenth, nineteenth, and early twentieth centures. Primary emphasis is given to the important nineteenth century theorists such as J. S. Mill, Marx. and de Tocqueville. Their theoretical treatment of such modern political phenomena as the masses, bureaucracy, democracy, liberty, and violence is extensively analyzed. (PT)

Employs the arts as a tool of analysis for political science. Includes literature, painting, music and tilm.
Special attention is given to the relationship between popular culture and political systems. (PT)
POT 4123 ALTERNATIVE POLITICAL FUTURES
Explores the political dimensions of the future. Examines alternative political systems and institutions from the perspective of polittcal ideas. Special attention is given to assessing current political trends and extrapolating them into the future (AP, PT)
POT 4204 AMERICAN POLITICAL THOUGHT
An examination ol American political thought Irom its 17 th century origins to the contemporary period. The continuities and discontinuities in the development of American political ideas since colonial times will recerve special attention. (PT)

An analysis of modern political ideologies since the French Revolution, including liberalism, conservatism, and socialism. Particular emphasis will be given to Marxism. The contemporary link between ideology and totalitarianism will be examined. (PT)
POT 4930 TOPICS IN POLITICAL THEORY
An intensive examination of selected topics dealing with political theory. Subjects will vary, depending upon the desires of students and faculty.
POT 5115 TOPICS IN POLITICS AND THE ARTS
An intensive examination of selected topics in the field of politics and the arts. Subjects will vary, depending upon the desires of students and laculty.

## POT 5934 TOPICS IN POLITICAL THEORY (VAR)

An intensive examination of selected topics dealing with political theory. The subjects will vary, depending upon the desires of students and faculty. Allows the student to choose topics of particular interest to him or her.
POT 6007 SEMINAR IN POLITICAL THEORY (VAR)
PUP 3004 THEORY AND ANALYSIS OF PUBLIC POLICY
An intensive examination of the theory and practice of lormulating, legitimizing, administering, and evaluating public policy. Includes a discussion of the role of administrators, legislators, courts, interest groups and political parties in their processes. Gives the student an analytical basis for understanding and participating in the making of public policy in a variety of policy areas. (AP)

PUP 4056 ISSUES IN THE ADMINISTRATION OF PUBLIC POLICY
An analysis of the policy consequences of major issues facing political executives and administrators, including planning for the year 2000, bringing government closer to the people, the pathologies of bureaucratization, technology assessment, quantification aids in decision making, needs for policy advice, and experiments in organizational forms. (AP)

PUP 4203 ENVIRONMENTAL POLITICS AND POLICY
A systematic examination of environmental policy making, emphasizing the various steps involved in transforming private preferences into authoritative public policies. Special attention is directed at the unique political problems posed by pollution, preservation of natural areas, natural resource management, population dynamics, and ecological imperatives. Designed to enable the student, particularly the environmental studies student, to understand the overlapping policy matrices which constrain environmental action. Also enables the student to identify critical decision points in the environmental policy-making process. (AP)

PUP 4314 AMERICAN ETHNIC POLITICS
This course examines American ethnic politics from conceptual and substantive perspectives. Special attention is devoted to the theoretical dynamics of ethnicity as well as an intensive investigation of Irish, Italian, Jewish, and Black ethnic politics. (AP)

## PUP 4323 WOMEN IN POLITICS

Examines the role of women in the political system, as they act within and are affected by, politics. Special attention to current and enduring political issues which particularly affect women. (AP)

## PUP 4404 TOPICS IN EDUCATIONAL POLICY

(VAR)
An intensive examination of selected topics dealing with educational policy. The subjects will vary, depending upon the desires of students and faculty.

## PUP 4520 POLITICS OF URBAN TRANSPORTATION DECISION-MAKING

A study of urban transportation decision-making processes, with a special emphasis on citizen participation, mobilization of community support for/or against transportation policies, and interaction with local, state and federal olficials. The course attempts to provide students with an understanding of the decisionmaking process with respect to the urban transportation policy planning. (PP)

## PUP 5934 TOPICS IN PUBLIC POLICY

An intensive examination of selected topics dealing with public policy. Subjects will vary, depending upon the desires of students and faculty. Allows the student to choose topics of particular interest to him or her.

## PUP 6007 SEMINAR IN PUBLIC POLICY

## SOC 3949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES

A student majoring in one of the Social Sciences (Economics, International Relations, Political Sciences, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

## SOC 4949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES

A student majoring in one of the Social Sciences (Economics. International Relations, Political Science, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

## PSYCHOLOGY MAJOR

Ronald Tikofsky, Professor and Chairperson<br>Edward Girden, Distinguished Professor<br>Milton Blum, Professor<br>Gordon Finley, Professor<br>Gary Moran, Professor<br>Bernard Saper, Professor<br>Marvin Dunn, Associate Professor<br>James Flanders, Associate Professor<br>Fernando Gonzalez-Reigosa, Associate Professor

William Kurtines, Associate Professor
Janat Parker, Associate Professor
James Rotton, Assistant Professor
Vincent Skotko, Assistant Professor
Arthur Flexser, Assistant Professor
Paul Foos, Assistant Professor
Lee S. Brownston, Assistant Professor
Patricia Baggett, Assistant Professor
Hugh Brown, Visiting Professor

## Campus Location: Tamiami \& North Miami Campuses <br> DEGREE: Bachelor of Arts <br> LOWER DIVISION PREPARATION: <br> Required course: introductory psychology <br> Recommended courses: physics, history, sociology, philosophy, economics, mathematics. UPPER DIVISION PROGRAM:

|  |  | Quarter Hours |
| :---: | :---: | :---: |
| Specific Required Courses in Psychology |  | 14 |
| PSY 3043C | 1. Advanced General Psychology | 7 |
| Lecture (2) |  |  |
| Laboratory (5) |  |  |
| Note: Lecture and Laboratory to be taken concurrently in junior year |  |  |
| 2. Other advanced laboratory or field |  |  |
| experience |  |  |
|  | (e.g. CYP 4953,DEP 4704C, SOP 4649, |  |

Note: To be taken during senior year. Prerequisites: PSY 3043C, STA 3122, STA 3123 or permission of instructor.
Required Courses in Statistics
8

1. STA 3122 (5)
2. STA 3123 (3)

Elective Courses in Psychology
at least 35
Note: PSY 4693C is especially recommended for the student planning to take the psychology specialty part of the Graduate Record Examination
Elective Courses Outside of Psychology
at least 10

Remarks: (1) The student is strongly urged to contact the Psychology Department for advisement in curriculum planning; (2) Limited funds are available through the Psychology Department to senior students with demonstrated scholastic ability and financial need.

Bachelor's degree with honors:
Application must be made and departmental approval granted, before the third quarter of the junior year, to undertake an independent project which must be approved by and carried out under the supervision of a member of the Department. Upon completion of the study, a satisfactory oral defense of the work must be presented to a Department committee.

Note: the bachelor's degree offered in this program is a liberal arts degree and not a professional degree. While it is possible to concentrate courses in one's area of interest, it is not possible at the present time to obtain a "professional specialization" at the undergraduate level in psychology.

# GRADUATE STUDY MASTER OF ARTS IN PSYCHOLOGY 

The Department of Psychology at Florida International University participates jointly with the Department of Psychology at Florida Atlantic University in offering the M.A. in Psychology. This joint program emphasizes work in General Experimental Psychology. Students entering the program must have a B.A. (or equivalent), and must satisfy the requirements for admission to the FAU master's program. Students may take a part of their course work at FIU and may undertake their research under the supervision of an FIU faculty member. The degree is awarded by Florida Atlantic University. Students in the program must satisfy the FAU requirements for the M.A. in Psychology.

## MASTER OF SCIENCE IN COMMUNITY PSYCHOLOGY

The Department of Psychology currently offers graduate study opportunities toward the degree Master of Science in Community Psychology. This graduate program provides scholarly, scientific and professional exposures, which are characteristic of both traditional graduate study within the general discipline of psychology, and modern innovative programming within the particular domain of professional psychology practiced in community settings.

The aim of the M.S. program in Community Psychology is to enable students to master three interrelated roles and functions by which the psychologist assists community agencies and groups to be more effective: those of the program evaluator, the human service consultant, and the psychosocial innovator. Students are trained to function as scientist-practitioners. They acquire basic and applied research, intervention, and evaluation skills required of all psychologists. In addition, they are exposed, during the 65 quarter-hours of graduate study, to specific content and methods courses in the main areas of community psychology practice. They engage in appropriate supervised field experiences, and complete a terminal master's project or thesis. They also select elective courses appropriate to their specialty interests in other fields of psychology and/or other units of the University.

The master's program in Community Psychology is, by virture of its content and field experience requirements, considered a terminal professional degree program. It is expected that most graduates will seek immediate employment and not procede directly to a Ph.D. program. In light of these objectives, students earning the master's degree in Community Psychology are expected to achieve a greater breadth and depth of training than that usually obtained in programs at the master's level.

## ADMISSION REQUIREMENTS

General: The Florida State University System requires that applicants for admission to graduate study achieve:

1. A bachelor's degree or equivalent from a regionally accredited university or college.
2. A " B " or better grade point average in all work undertaken while the candidate was registered as an upper division student for the baccalaureate degree, OR a total score (quantitative plus verbal) of 1,000 or higher on the Graduate Record Examination, or an equivalent score on some other measure specified by the University. The Department of Psychology requires that both GRE scores and official transcripts be submitted in order to ensure consideration for acceptance. In addition to these basic requirements, the Department reserves the right to require additional material.
3. Applicants should check with the Admissions Office to ascertain current requirements, since the objectives of academic and professional excellence sought by the Department of Psychology, and the intense competition among applicants for the limited number of graduate positions authorized, will result in increasing the effective requirements far beyond the University's "minimum."
Applicants to the program who are not psychology majors may be accepted conditionally until they meet the category I-IV requirements, listed below, early in their graduate career. A maximum of 15 quarter hour credits earned in the special student category exclusive of the prerequisite undergraduate courses may be applied to graduate degree requirements.

Undergraduate Courses: These requirements are designed to make certain that students accepted into graduate program have a broad base of dependable psychological knowledge and acquaintance with the basic methodologies upon which the discipline is founded.
CATEGORY I Satisfactory completion of one upper division course or laboratory course in three of the following areas (or their equivalent) outside the area of graduate specialization.

| Developmental | Abnormal, Personality |
| :--- | :--- |
| Social | Community |
| History, Systems, Overview | Industrial |
| Differential or Individual | Motivation |

CATEGORY II Satisfactory completion of one psychology laboratory course. (Ordinarily this requirement will be met by taking a general experimental psychology laboratory course, such as PSY 3043C or its equivalent.)
CATEGORY III Satisfactory completion of one basic experimental course from areas such as learning, conditioning, physiological, perception, memory or related areas (can include laboratory course but not general experimental laboratory).
CATEGORY IV Satisfactory completion of introductory statistics.

## APPLICATION PROCEDURES FOR THE MASTER OF SCIENCE IN COMMUNITY PSYCHOLOGY

Students seeking admission to the graduate program in Community Psychology must complete the following steps:

1. Submit a graduate application for admission to the Admissions Office of Florida International University. Application forms will be mailed upon request. Application deadline is April 15.
2. Have a copy of the official transcripts of all previously earned college or university credits sent from the applicant's former institution(s) to the Admissions Office of Florida International University. Copies submitted directly by applicants are not accepted for application purposes.
3. Submit three recommendations from previous instructors.
4. Submit an essay stating reason for interest in the program.
5. Submit the results of the Graduate Record Exam (GRE) both Aptitude and Psychology Advanced Tests, administered nationally by the Educational Testing Service (Box 955, Princeton, New Jersey, 08540).

## DEGREE REQUIREMENTS

To be eligible to receive the master's degree a student must satisfy all University requirements for a master's degree and the specific requirements of an approved program of study.

All students in this program of study are expected to complete a 19 quarter-hour core course requirement. This core serves two functions: 1) to provide the student with the tools necessary to interpret and carry out research in the field; 2) to bring together some of the major intervention approaches of applied psychology (particularly through the Strategies and Methods of Applied Psychological Research course) within the framework of good and ethical practice.

In addition to the core, students in community psychology are required to complete 20 quarter hours of courses focusing on the major issues relevant to the settings in which Community Psychology is practiced. The specialty area requirements in Community Psychology also include a 10 quarter hour field or practicum experience, and a master's project of 6 quarter hours credit. Students are expected to take electives either in the Department or in other departments and units of the University for at least 10 quarter hours.

## TYPICAL PROGRAM OF STUDY

Graduate Core Requirements (19 Quarter hours to be completed by all graduate students) PSY 5206C

Design of Experiments in Psychological Research
4 credits
PSY 5246 C Multivariate Analysis in Applied Psychology 4 credits

EXP 5702 Strategies and Methods of Applied Psychological

> DEP 5405
> CLP 5931 Research
Psychological Processes of the Maturing Adult
Ethical Code in Psychological Practice
5 credits

Specialty Area Requirements
CYP $5535 \quad$ Psychology of Institutional and Social Change 4 credits
INP 5055
Social Psychology of Organizations
(may be substituted for CYP 5535)
CYP 5515
Psychological Services Administration
4 credits
1 credit

4 credits

CYP 6936
Current Issues in Community Psychology
4 credits
CYP 6536
Principles and Methods of Psychological Consultation

3 credits

CYP 6526
Psychological Methods of Program Evaluation
4 credits
CYP $6956 \quad$ Field Experience in Community Psychology (three enroliments required $3,3,4$ hours)

10 credits
PSY 6971
*Master's Project in Psychology
Electives (in the Department or in other departments or units of the University, selected in consultation with the student's advisor)

6 credits

10 credits
The following courses are usually taken early in the matriculation:
CYP 6936
Current Issues in Community Psychology
CYP $6536 \quad$ Principles and Methods of Psychological Consultation
CYP 6526
Psychological Methods of Program Evaluation
Total quarter-hours required:
*The product expected in PSY 6971 is a project or thesis of the quality and sophistication comparable to an article in the Psychological Review or Psychological Bulletin.

## GRADES, CREDITS, AND COURSE LOADS

The optimum recommended course load for full-time graduate students is 10 quarter hours per quarter. The recommended course load for working or part-time students is 5 quarter hours. Approval for exceptions must be obtained from the Chairperson of the Department of Psychology. Course work in which a grade below " C " is earned may not be counted toward the Master of Science degree. All work applicable to the master's degree must be completed within five years immediately preceding the awarding of the degree. A student may receive permission to transfer up to a maximum of 10 quarter hours of graduate credit to the degree program, provided that: 1) the course(s) were taken at the graduate level at an accredited college or university; 2) grade(s) of " B " or better were earned; and 3) the course(s) are judged by the faculty advisor to be relevant to the student's graduate program. Acceptable credit must not have been used toward another degree.

## ACADEMIC WARNING, PROBATION AND DISMISSAL

WARNING: A student whose cumulative GPA falls below a 3.0, or who otherwise evidences that he or she is experiencing problems in the program, will be placed on WARNING indicating academic or practicum difficulties.
PROBATION: A student on WARNING whose cumulative GPA falls below 3.0 will be placed on PROBATION indicating serious academic difficulty. The College/School of the student on PROBATION will then communicate conditions which must be met in order for the student to continue to enroll.
DISMISSAL: A student on PROBATION whose cumulative and quarterly GPA falls below 3.0 will be automatically dismissed from his/her program and the University.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

CLP-Clinical Psychology; CYP-Community Psychology; DEP—Developmental Psychology; EAB-Experiemental Analysis of Behavior; EDP-Educational Psychology; EXP-Experimental Psychology;

INP-Industrial and Applied Psychology; LIN-Linguistics; PCO-Psychology for Counseling; PPE-Psychology of Personality; PSB-Psychobiology; PSY-Psychology; SOC-Sociology; SOP-Social Psychology; SPA-Speech Pathology and Audiology.
CLP 3003 PERSONAL ADJUSTMENT
Study of personal adjustment in the social and occupational life of the individual. Emphasis on interpersonal aspects of eflective behavior.
CLP 4144 ABNORMAL PSYCHOLOGY
Various lorms of behavior pathology are examined in the light of traditional and current concepts of mental health and illness. Problems of diagnosis and treatment are discussed. The role of social mores is examined.
CLP 4374 TREATMENT OF BEHAVIOR DISORDERS
Current approaches to the treatment and improvement of psychological disorders are critically surveyed. Emphasis is placed on the examination of the various techniques of psychotherapy and behavior therapy. Broader strategies of prevention and mental health promotion, like consultation, counseling, and programmed agency services, are also studied.
CLP 5166 ADVANCED BEHAVIOR PATHOLOGY
Advanced study of the causes, psychopathology, manifestations, and social and personal consequences of behavior disturbance. Emphasis is placed on the critical examination of current research on the biological, psychological, and social aspects of these disorders. Clinical approaches to diagnosis, course, and prognosis in the contemporary mental health context (including "practicum" assignments if feasible) are covered.

## CLP 5175 PERSONALITY DYNAMICS

(5) (S)

A review of different approaches to the study of personality dynamics and of the related therapeutic modalities. Special consideration is given to psychoanalysis and neo-analytic psychology. Other therapeutic models which influence current psychological thought are also considered. Prerequisites: Successful completion of a course in theories of personality, or equivalent. Permission of instructor.

## CLP 5185 CURRENT ISSUES IN MENTAL HEALTH

 empirical study of contemporary problems related to the making of mental patients; planning, programming and administering mental health services; political, ethical and legal constraints on the operation of mental health facilities; interdisciplinary cooperation among helping and human service professionals; and evaluation of preventive care and treatment services. Prerequisite: Abnormal Psychology, or permission of the instructor.CLP 5931 ETHICAL CODE IN PSYCHOLOGICAL PRACTICE
An examination of the ethical standards for psychological practice as established by the American Psychological Association, and the Association's standards for delivery of psychological services. Prerequisite: Admission to graduate study in psychology; (other graduate students admitted by permission of instructor).
CYP 3003 INTRODUCTION TO COMMUNITY PSYCHOLOGY
An introduction to the issues and scope of Community Psychology. Students will be exposed to the development of Community Psychology as a growing discipline. Particular emphasis will be placed on the role of the community psychologist as an agent of social change.
CYP 4953 COMMUNITY PSYCHOLOGY FIELD EXPERIENCES I
Students will be organized into task-oriented teams or will work independently in the community, for the purpose of becoming familiar with various community institutions and developing an action plan for assisting institutions in implementing change. Prerequisite: Introduction to Community Psychology.
CYP 5515 PSYCHOLOGICAL SERVICES ADMINISTRATION
A broad survey of the function of administrative institutions in society, from a psychological perspective. Focuses on the psychological theories, concepts, and practices involved in administration, organization and delivery of human services. Emphasizes prosocial data involved in political functioning and administrative behavior in the public sector. Prerequisites: enrollment in graduate program at FIU; permission of instructor.
CYP 5535 PSYCHOLOGY OF INSTITUTIONAL AND SOCIAL CHANGE
A study of the theoretical basis of and strategies applied to the process of effecting social change in community instifutions involved in the delivery of human services.
CYP 5954 COMMUNITY PSYCHOLOGY FIELD EXPERIENCES II
Same orientation and description as Field Experience I. Students in this course will be able to pursue their work with community institutions in more depth. Prerequisite: Students enrolled in this course must have completed Community Psychology Field Experiences 1.
CYP 6526 PSYCHOLOGICAL METHODS OF PROGRAM EVALUATION
Development ol skills for the psychological assessment, monitoring and evaluation of human service programs, with emphasis on the application of basic principles of behavioral science research in the field setting. Prerequisites: Admission to graduate study in psychology (other graduate students admitted by permission of instructor).
CYP 6536 PRINCIPLES AND METHODS OF PSYCHOLOGICAL CONSULTATION
An analysis of the basic psychological approaches underlying consultation, with special emphasis on the practical application of the processes ol learning, cognition, and interpersonal relations to techniques of consulting with various "target" agencies, individual clients, and other professionals in community settıngs. Prerequisite: graduate standing at FIU, or permission of instructor.

## CYP 6936 CURRENT ISSUES IN COMMUNITY PSYCHOLOGY

An intensive analysis ol contemporary theoretical, practical, and prolessional aspects of the field of Com-
munity Psychology. Topics discussed may lead to the graduate project required of each student. Prerequisites: Admission to graduate study in psychology (other graduate students admitted by permission of instructor).
CYP 6956 FIELD EXPERIENCE IN COMMUNITY PSYCHOLOGY
(VAR)
Placement of students in applied settings for the purpose of developing community-based experience in the application of theoretical and methodological approaches. Prerequisites: CYP 5535, CYP 5515, CYP 6936. CLP 5931, STA 5126, STA 5707.

DEP 3000 HUMAN GROWTH AND DEVELOPMENT
(5) (F,S,SS)

An introductory sludy of the development of personality, intelligence, and motivation, from childhood to adulthood Emphasis is on development of cognitive systems through social learning. This course is designed primarily for students enrolled in the Schools of Education and Health and Social Services. Students planning to major in psychology should enroll in DEP 3001.
DEP 3001 INTRODUCTORY DEVELOPMENTAL PSYCHOLOGY
(5) (F,W,SS)

An introduction to human development focusing on infancy and childhood. Particular attention will be devoted to intellectual, personality, and social development. Consideration will be given to both theoretical and empirical perspectives. This course or its equivalent must be completed successfully before students may enroll in most 4000 and 5000 level courses in developmental psychology
DEP 3303 PSYCHOLOGY OF ADOLESCENCE
An examination of psychological, sociological and biological factors contributing to the changes from childhood to adolescence, and from adolescence to young adulthood.
DEP 3402 PSYCHOLOGY OF ADULTHOOD
(5) (W)

The transition from youth to middle age is studied. Focus is on changing roles in family, work, and societal settings, as these lactors influence personality and other aspects of psychological function.

## DEP 4044 MORAL DEVELOPMENT

(5) $(W, S)$

The course is intended to be a critical survey of psychological theories and psychological research concerning the development of moral attitudes and behavior, and the application of research in moral development to social problems. Emphasis is given to those theories that have generated a substantial body of empirical research. The major theories to be reviewed include psychoanalytic theory (Freud, and the ego psychologists), cognitive developmental theory as it is applied to the development of moral judgment (Piaget, Kohlberg, etc.), and social learning theory (Aronfreed, Bandura, Hill, etc.).

## DEP 4163 COGNITIVE DEVELOPMENT

An examination of developmental changes in the nature of children's thought processes. Particular emphasis is given to theories of Jean Piaget. Prerequisite: Students should have successfully completed a course in introductory developmental psychology or its equivalent.
DEP 4164 CHILDREN'S LEARNING
Learning in infancy and childhood, with particular emphasis on simple conditioning, discrimination shifts, mediation, transposition, observational and concept learning. Prerequisite: Students enrolling in this course should have completed successfully at least one prior course in developmentai psychology.
DEP 4204 PEDIATRIC PSYCHOLOGY
Aspects of normal and abnormal child care and child rearing are examined. Adult-child interaction in the home and in institutional settings is explored, and common problems of childhood discussed.
DEP 4213 CHILDHOOD PSYCHOPATHOLOGY
(5)

Various forms of abnormal behavior in infancy, childhood and adolescence are examined, within the context of traditional and contemporary psychological theory. Problems of differential diagnosis and forms of remediation are discussed.
DEP 4464 PSYCHOLOGY OF AGING
An examination of the factors which contribute to the psychological profile characterizing old age. Biological and sociological components are considered, and their impact on perceptual, cognitive, and personality processes is analyzed.
DEP 4704C DEVELOPMENTAL PSYCHOLOGY: LECTURE (2) LABORATORY
Laboratory/observation exercises illustrative of the concepts and research techniques used in developmental psychology. Particular emphasis is given to cognitive and social-cognitive development.

## DEP 5145 CULTURE AND CHILDHOOD

(5) (W,S)

An examination of cultural and societal influences on children's motor, perceptual, inteliectual, and personality development. Extensive readings in cross-cultural research literature serve as the focus for class discussions and independent projects. Prerequisite: Senior or graduate standing

## DEP 5405 PSYCHOLOGICAL PROCESSES OF THE MATURING ADULT

An intensive examination of the literature dealing with the maturing adult, with particular emphasis on psychological considerations of career development, intellectual and personality evaluation, changing roles as applied to career choice, deparenting, and preparation for retirement. Prerequisite: Graduate standing. Seniors may be admitted by permission of instructor.
EAB 4794 PRINCIPLES AND THEORIES OF BEHAVIOR MODIFICATION
(5) (S)

Studies different approaches to the modification of problem behavior, through the application of learning principles and theories.

## EAB 5655 ADVANCED METHODS OF BEHAVIOR CHANGE

(5) $(F, S)$

An intensive study of selected methods of modifying human behavior, emphasizing the applications of the principles of respondent and operant conditioning, as well as those derived from modern social learning theories. Practice and role playing opportunities are provided in behavior therapy, relaxation therapy, behavior modification, biofeedback or similar behavioral approaches. Prerequisites: EAB 4794, CLP 4374, CYP 4144; enrollment in an authorized graduale program; equivalent background; or permission of instructor.

An introduction to the ways in which the principles of psychology apply to educational practices, considering aspects of basic processes such as development, learning, individual differences, and adjustment: with special reference to the problems of teacher effectiveness and teacher-student interaction. This course is designed for students who have not had a prior course in educational psychology. While not designed as a course for psychology majors, it may, under special petition, be counted as meeting an elective requirement in psychology.
EDP 6935 SPECIAL TOPICS IN EDUCATIONAL PSYCHOLOGY
(VAR)
An intensive analysis of a particular topic in educational psychology. Students must have topics approved by the instructor prior to registration. Open only to advanced and graduate students in the School of Education.
EXP 3304 MOTIVATION AND EMOTION
Introduces several perspectives from learning theory, perception, and personality theory to explore ways in which people move through their physical and social environment.
EXP 3652 PSYCHOLOGY OF CREATIVITY
An exploration of the psychological processes involved in the act of creation. Several approaches to the understanding of creators and their creations are used, including the study of eminent creative people, and sessions with persons involved in creative efforts. A survey of scientific studies of creation, and personal involvement and introspection by the student.

## EXP 4204 SENSATION AND PERCEPTION

(5) (F)

Basic concepts in sensation and perception are explored, with an emphasis on models of peripheral and central neural processing. Topics such as receptor function, brightness and color vision, movement and object perception, perceptual memory and pattern recognition are considered. Psychophysical techniques, such as subjective magnitude estimation and signal detection theory, are covered.
EXP 4404C HUMAN LEARNING AND REMEMBERING: LECTURE (2) AND LABORATORY
Lectures on the research and theoretical contributions to the understanding of human learning and remembering; and laboratory exercises illustrative of the concepts and techniques used in conducting experimental studies of human learning and remembering. Prerequisite: Advanced General Psychology With Laboratory (PSY 3043)
EXP 4605 COGNITIVE PROCESSES
(5) (W)

Investigation of the mental processing underlying experiences and behavior. Topics include: games, puzzles, and problems; intuitive and creative thought; conceptualization, reasoning and clinical diagnosis; choices and decisions; conceptions of time and space; and thought in abnormal or altered states of consciousness.
EXP 4934 CURRENT EXPERIMENTAL THEORIES
(5) (F,S)

The stress in this course is on current specific theories determining the nature and direction of the research and interest in the several important areas, such as psychophysics, learning and remembering, developmenta\{ patterns and motivation, personality, etc. Topics to be covered will be announced at the beginning of the academic year. May be taken twice for credit toward the major.
EXP 5005C ADVANCED EXPERIMENTAL PSYCHOLOGY: LECTURES AND LABORATORY
Lecture and laboratory course investigating experimental research in the fundamental processes of human behavior. Includes perceptual, cognitive, and linguistic processes. Prerequisites: PSY 3043C, STA 3122 and STA 3123.
EXP 5406 THEORIES OF LEARNING
The major theoretical systems of learning are covered, with the intent of determining how well each accounts for the phenomena of learning. Emphasis is placed on exploring the controversial issues raised by extant theories, and the experimental resolution of these theoretical controversies. The impact of theory on current thinking about learning is considered.

## EXP 5702 METHODS OF PSYCHOLOGICAL RESEARCH

A practicum course in behavioral research, in which an investigation is planned, carried out, analyzed, and reported. Discussion is directed to experimental, quasi-experimental, and non-experimental designs; obtrusive and unobtrusive measures; mathematical and logical tools for analysis of results; uses of the computer for data collection and analysis; and ethical consideration in research on human populations. Prerequisite: permission of the instructor.

## INP 3002 INTRODUCTORY INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY

(5) $(F, W)$

Introduction to the study of behavior in the work environment. Illustrative topics include formal and informal organization, work motivation, satisfaction and pertormance, leadership, job analysis, selection and perlormance evaluation, training and development.
INP 4055C INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY LECTURE (2) AND LABORATORY (5)
Students gain experience with the use of psychometric instruments in the areas of job analysis, personnel selection, perlormance appraisal, job satisfaction, criteria analysis, and management training and development. Prerequisites: Statistics, and Introductory Industrial/Organizational Psychology, or Personnel Psychology, or Personnel Management, are recommended.
INP 4203 PERSONNEL PSYCHOLOGY
Techniques and procedures applicable to the selection, placement, utilization, and evaluation of personnel in organizations are considered The emphasis will be on empirical procedures, rather than the management function in the personnel area. Topics such as quantitive methods and models for selection, criteria analysis, performance appraisal, management training, and job satistaction are discussed. Prior course in Statistics strongly recommended.
INP 5055 SOCIAL PSYCHOLOGY OF ORGANIZATIONS
The application of concepts and theories from social psychology and sociology to the organizational setting. Emphasis on role theory, value lormation and the operation of norms, including their development
and entorcement. Formal and informal organization structure, power and authority concepts, and leadership theories are covered. Communication processes and networks, and their effects on task accomplishment and satisfaction are included.

## INP 6055C STRATEGIES AND METHODS OF APPLIED PSYCHOLOGICAL RESEARCH

A practicum course in behavioral research, in which an investigation is planned, carried out, analyzed, and reported. Discussion is directed to single- and multiple-subject research; experimental, quasiexperimental, and non-experimental designs; obtrusive and unobtrusive measures; mathematical and logical tools for analysis of results; computer applications in data collection and analysis, and ethical considerations in research on human populations. Prerequisites: STA 5206 and STA 5707

## LIN 4701 PSYCHOLOGY OF LANGUAGE

An overview of the psychology of language and the psychological "reality" of linguistic structure. Behavioristic vs. cognitive views of psycholinguistics are examined. Consideration is given to the biological bases of language and thought, language acquisition, and language pathology.

## LIN 4710 LANGUAGE ACQUISITION

(5) (S)

An examination of the way children acquire language, based on experimental findings from contemporary linguistic, psycholinguistic and behavioral theory.
PPE 3003 THEORIES OF PERSONALITY
(5) (F,S)

An examination of various theories of personality. Consideration is given to traditional and contemporary approaches to personality development.
PPE 3502 PSYCHOLOGY OF CONSCIOUSNESS
Normal and altered states of human consciousness are analyzed from the perceptual and neuropsychological viewpoint. Broad topic areas include physiologically determined levels of arousal, from deep sleep to intense excitement; selective attention; perceptual plasticity; illusions; sensory depriviation; biofeedback; psychosomatic disease; hypnotism and suggestibility; as well as a critical treatment of the phenomena of parapsychology.
PPE 4105 HUMANISTIC PSYCHOLOGY
Studies the methodology, research and findings of the humanistic orientation in psychology. Topics such as counseling, encounter groups, higher consciousness, biofeedback, intentional communities, education, mysticism and religion are examined from the humanistic viewpoint. Prerequisite: Prior completion of a course in Theories of Personality is recommended.
PPE 4325C DIFFERENTIAL PSYCHOLOGY: LECTURE (2) AND LABORATORY
Lectures and laboratory field experiences in the principles and methods underlying the administration, construction and evaluation of psychological tests. Practice in the administration and interpretation of selected psychological tests. Prerequisite: STA 3122, or an equivalent introductory course in statistics.

## PPE 4514 PSYCHOLOGY OF DREAMS AND DREAMING

An in-depth examination of the most important psychological theories of dream function and of the use of dreams in different therapeutic approaches. The current research on the physiology and psychology of sleep is also evaluated. Prerequisite: Theories of Personality or its equivalent.

## PPE 4604 PSYCHOLOGY OF INDIVIDUAL DIFFERENCES

An introduction to the rationale underlying the use of psychological tests. Topics include basic test terminology, test administration, interpreting standard scores, reliability, validity, tests of intelligence, interest inventories, personality tests, the ethics of testing, and the fairness of tests for different segments of the population.
PPE 4930 TOPICS IN PERSONALITY
(VAR) (F,W,S,SS)
PSB 3523C MEMORY AND MEMORY IMPROVEMENT
This introduction to human memory considers the topic from a number of points of view. The following issues are addressed: the nature of memory and its phenomena; the capabilities and limitations of an ordinary and an extraordinary memory; and the skills which can aid an ordinary memory.
PSB 4003 INTRODUCTORY BIO-PSYCHOLOGY
A study of the more important psychobiologic correlates of behavior in basic psychological phenomena. Open only to majors in the senior year or otherwise qualified students.

## PSY 3013 INTRODUCTORY PSYCHOLOGY

(5) (F,SS)

Psychological principles underlying basic processes such as perceiving, learning, thinking, motivation and emotions. Students are introduced to theories and research methods in terms of their contributions to contemporary psychology. Note: This course does not count towards the major in psychology. It is designed for non-majors and is a prerequisite for majors who have not had an introductory course in psychology.

## PSY 3043C ADVANCED GENERAL PSYCHOLOGY WITH LABORATORY: LECTURE (2) <br> LABORATORY

(5) $(F, W, S)$

An intensive lecture and laboratory course, designed to present the basic concepts and methods of traditional and contemporary psychology. Emphasis is placed on the role of methodology and experimentation in all phases of psychology. Students study sensory systems, information processing, perception, and other psychological processes. In addition to classroom experience, students participate in laboratory exercises designed to illustrate concepts covered in lectures. The laboratory exercises provide students with an opportunity to develop and use skills and techniques employed in the execution of human psychological experiments, while fultilling laboratory course requirements in experimental psychology. Note: This course is required of all psychology majors and must be completed during the first year of residence.
PSY 4693C OVERVIEW OF PSYCHOLOGY
(5) (W)

A consideration of the historical origins and developments of modern psychology as a viable discipline, in light of the major influences upon its growth. Prerequisite: 20 quarter hours in upper division psychology courses.

Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their laculty advisor, and to submit a written report of their study.
PSY 4914 HONORS RESEARCH PROJECT
(VAR)
Limited to qualified seniors seeking honors in psychology. Students must submit a research plan and have a research advisor's approval ol the research project prior to enrollment in the course. A written report ol the research in the A.P.A. publication style must be submitted lor evaluation before credit will be awarded.
PSY 4916 INDEPENDENT RESEARCH IN PSYCHOLOGY
Limited to qualified students who have permission from a laculty member and who present a written proposal for research. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their research.
PSY 4930 SPECIAL TOPICS IN PSYCHOLOGY
PSY 4931 SENIOR SEMINAR IN PSYCHOLOGY
An advanced seminar for seniors. Analysis of major contemporary trends in psychological theory and research.
PSY 4941 INDEPENDENT FIELD EXPERIENCES IN PSYCHOLOGY
Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their experiences.
PSY 5206C DESIGN OF EXPERIMENTS IN PSYCHOLOGICAL RESEARCH
Reviews the Analysis of Variance, and introduces the student to randomized and blocking designs, factorial designs, fractional factorial, main effects and other plans as they are used in psychological research. Main emphasis is on the rationale behind the several designs, and the techniques for applying these to psychological experiments. Prerequisites: STA 3122 and 3123, or their equivalents.
PSY 5246C MULTIVARIATE ANALYSIS IN APPLIED PSYCHOLOGICAL RESEARCH
Covers basic techniques of multivariate analysis, emphasizing the rationale and applications to psychological research. Includes multiple regression, Hotellings $T^{2}$, MANOVA, principle component analysis and factor analysis. Prerequisite: STA 3123 or equivalent; linear algebra recommended.
PSY 5939 SPECIAL TOPICS IN PSYCHOLOGY
(VAR) (F,W,S,SS)
PSY 6971 MASTER'S PROJECT IN PSYCHOLOGY
Terminal project leading to the M.A. degree, individually designed to meet each student's needs. Constitutes an original approach to a problem related to the discipline, and requires the submission of a final paper or equivalent work. Prerequisites: all required courses for the M.A. must be completed or in progress.
SOC 3949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES
A student majoring in one of the Social Sciences, (Economics, International Relations, Political Sciences, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.
SOC 4949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES
A student majoring in one of the Social Sciences, (Economics, International Relations, Political Science, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.
SOP 3004 INTRODUCTORY SOCIAL PSYCHOLOGY
Introduction to the study of the relationship of the individual to social systems, including topics such as social behavior, attitude development and change, social conflict, group processes, mass phenomena, and communication.
SOP 3724 PSYCHOLOGY OF RACISM
Consideration is given to the nature and development of institutional racism in America. The historical, social, economic and psychological aspects of racism are examined.

## SOP 3742 PSYCHOLOGY OF WOMEN

An examination ol women from various perspectives, such as biologica!, anthropological, mythological, religious, historical, legal, sociological, and psycho-analytical points ot view. Discission of ways in which these various perspectives influence the psychological development of contemporary women.

## SOP 3772 PSYCHOLOGY OF SEXUAL BEHAVIOR

An examination of the nature, development, decline and disorders of sexual behaviors, primarily from the perspectives ol normal adjustment and interpersonal relations. Discussion also addresses love, intimacy, and similar emotionally charged sociopsychological topics. Modern and popular treatment approaches - including the "new sex therapies" - are critically evaluated.

## SOP 3783 BLACK PSYCHOLOGY

An examination of the social-psychological consequences of being black in America. This course locuses on contemporary black attitude(s) and their relationship to the historical, social and economic realities of the American blacks' sojourn in the U.S. Specific attention is given to the individual and the lamily, and their attitudes towards the broader social milieu.

## SOP 3931 PSYCHOLOGY OF GIVING, HELPING AND VOLUNTEERING

Theories, research data, and community applications of prosocial activities, such as giving, helping, volunteering and altruism.

This course will cover some basic information about the nature and effects of drugs abused, the social and personal dynamics involved in the phenomena ol drug abuse and the various rehabilitation programs currently being employed to combat drug abuse.
SOP 4015 SOCIAL AND PERSONALITY DEVELOPMENT
An examination of the genetic, lamilial, and societal factors influencing the development of a child's personality and his social behavior.
SOP 4215C EXPERIMENTAL SOCIAL PSYCHOLOGY: LECTURE (2) AND LABORATORY
The primary purpose of this course is to have students conduct actual social psychological experiments. Lecture material will be secondary to (and in the interest of) allowing students to execute representative experiments in areas such as attitude measurement and change, conformity, group stucture and communication, efc
SOP 4444 ATTITUDES AND ETHNICITY: A CROSS-CULTURAL PSYCHOLOGICAL APPROACH (5)
Comparative study of the attitudes and practices of racial and ethnic groups toward each other in a variety of cultural and national settings.

## SOP 4505 THEORIES OF HUMAN RELATIONS

(5) (S)

Research methods and findings on the topic of interpersonal interaction in face-to-face situations.
Emphasis on content of research methods and findings, rather than in-class experiences.
SOP 4513 PSYCHOLOGY OF CONFLICT
This course examines the psychological factors involved in conflict situations. The focus is on intrapersonal, interpersonal and intergroup conflict resolutions, and the applicability of such resolutions to various conflict conditions. These may include racial or religious conflicts, and even international wars. The course also considers the ultimate disintegration of the individual personality as a result of internalized conflict, and attempts to familiarize students with the psychological factors underlying varying conditions of conflict and resolution.

## SOP 4522 SOCIAL MOTIVATION

Focuses upon those sources of human motivation which are a consequence of man's socialinterpersonal environment and his striving to obtain socially valued goals. Topics discussed include testlaking anxiety, alienation and affiliation motivation, internal vs. external orientation, achievement motivation, etc. The measurement of social motives and their roots and consequences for behavior are discussed.
SOP 4525 SMALL GROUP BEHAVIOR
(5) (F,W,)

Introduction to the study of the structure and function of groups, emphasizing the behavior of individuals as affected by the group. The course focuses on experimental evidence concerning such topics as social facilitation, group decision making, phases in group development, physical factors in group behavior, etc.; rather than upon student experience in sensitivity or encounter training.

## SOP 4615 SOCIAL PSYCHOLOGY OF ORGANIZATIONS

Survey of the theoretical and methodological issues in the study of organizational structures and environments, focusing on social processes as constraints on organizational functioning.

## SOP 4645 CONSUMER PSYCHOLOGY

(5) (F,W)

This course addresses the psychological components contributing to satisfaction and dissatisfaction in buying and selling transactions. The consequences of such transactions, as they affect the environment in which we live as well as society in general, are examined. The interface between business, labor, government and the consumer - as all four groups are involved in consumer affairs - is analyzed objectively.

## SOP 4649 EXPERIMENTAL CONSUMER PSYCHOLOGY

Students work individually or in teams on topics and issues relevant to the needs of South Florida. The research projects approved require gathering and analyzing of data calculated to help reduce or solve current consumer affairs problems. Emphasis is placed on methods and measurements used by psychologists. It is recommended that students complete the course in Consumer Psychology prior to registering for this course.

## SOP 4705 PSYCHOLOGY OF SOCIAL CHANGE

(5) (W)

An examination of methods of implementing institutional change. Consideration is given to alternatives such as violent vs. non-violent confrontation, and the use of information as an instrument of change.

## SOP 4712 ENVIRONMENTAL PSYCHOLOGY

An introduction to the man-environment interaction, including psychological, sociological and physical aspects.

## SOP 4715 PSYCHOLOGICAL INFLUENCE OF CULTURE ON LEARNING AND THINKING

An analysis of the research and theory relating cultural and societal intluences of learning and thinking. Consideration is given to the controversies concerning assessment, individual and group differences. Prior course work in developmental psychology would be helpiul.

SOP 4735 PSYCHOLOGICAL ASPECTS OF INTERNATIONAL RELATIONS AND CONFLICT (5) (W) A study of the psychological, especially social, factors in the dynamics of international behavior interactions, which may increase or decrease tensions and conflicts.

## SOP 4842 LEGAL PSYCHOLOGY

Particular emphasis will be given to interpersonal courtroom processes. Topics considered include scientitic jury selection, proxemics, persuasive argumentation, witness demeanor, eyewitness testimony, and similar influences upon juror decision making. Prerequisites: None.

This course focuses on failures of children to acquire normal speech and language. The various causes of such disorders, and theories to account for failure to acquire language are considered. Techniques for assessing language disorders in children are evaluated. Students enrolling in this course should ordinarily have completed one course in developmental psychology.

## SOCIOLOGY MAJOR

Sociology is part of the Department of Sociology and Anthropology and all information should be obtained from that Department's office.
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION: Ninety quarter hours ( 60 semester hours) or the Associate of Arts degree from a community college; work should be pre-Arts and Sciences, or pre-Anthropology or Sociology if such programs exist. If the student does not have an AA degree, his background must reflect an ability to handle advanced academic work.

Required Courses: Introduction to cultural anthropology; or introduction to physical anthropology; or introduction to sociology.
Recommended Courses: (1) other anthropology or sociology courses (2) ecology, economics, geography, history, political science, psychology, (3) arts, biology, English, foreign language, mathematics, philosophy.
UPPER DIVISION PROGRAM

Core Courses:
ANT 3086 Anthropological Theories 5
SOC 3610 Sociological Theories 5
SOC 3500 Research Methods 5
SSI 3303 Ethical Issues in Social Science Research 5
Area Courses: either sociology or anthropology 40
Electives: with approval of the faculty advisor

NOTE: A student with special interests may consult faculty advisors to plan an individualized program of study.
Field Work Experience - A meaningful understanding of anthropology and sociology can best be developed through the interplay between theory and research. Each student will be encouraged to work outside of the formal classroom under faculty supervision.

## MINOR IN SOCIOLOGY/ANTHROPOLOGY

Prescribed Courses:
25 credits in the Department of Sociology-Anthropology including the following:
2 courses chosen from among the four core courses required of department majors (ANT 3086 Anthropological Theories, SOC 3610 Sociological Theories, SOC 3500 Research Methods. SSI 3303 Ethical Issues in Social Science Research).

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

ANT—Anthropology: DHE—Demography \& Human Ecology; HUS—Human Services; LIN-Linguistics; MAF-Marriage \& Family; SOC-Sociology; SSI-Social Sciences-Interdisciplinary.
reviewed include: Darwin and evolution; Boas and historical particularism; Freud and culture and personality; and Malinowski and lunctionalism.
DHE 3101 INTRODUCTION TO POPULATION ANALYSIS
An introduction to the study of population analysis. Classilications by age, sex, occupation, or other criteria, and the significance of such data for analyzing major social trends are studied. The import of statistical records such as births, deaths, marriage registrations and census data is reviewed and analyzed

## DHE 3300 HUMAN ECOLOGY

An introduction to the adaptive processes social beings make to their environment, with particular emphasis on spatial distributions of interrelated social tacts such as crime rates and population characteristics, or poverty and housing conditions. Current studies on social interrelationships and physical environments are introduced.

## HUS 4413 HEALTH AND WELFARE DELIVERY SYSTEMS

A review ol the varied systems servicing society's health and welfare needs. Attention is given to the institutional origins of such systems and their propensity for change and modification. Studies reflecting evaluative considerations for such systems are reviewed.

## LIN 3642 LANGUAGE AND CULTURE

An examination of the relationship between language and culture, the implications of language for our perceptions of reality, and the socio-cultural implications of language differences for interethnic relations and international understanding.

## MAF 3210 MARRIAGE AND THE FAMILY

An introduction to the intensive study of the kinship relationship of man known as the family. The family is distinguished from other social units, and behavior variations of this special unit are analyzed and associated with special functions. Contemporary manifestations of the family and the dynamic changes indicated are considered
MAF 4510 COMPARATIVE FAMILY SYSTEMS
The study of family organization and function in selected major world cultures. Emphasis is given to the inter-relationships of the family, the economic system, urbanization, and human development.

## MAF 4511 STUDIES IN COMPARATIVE LIFE STYLES

A problem-oriented course emphasizing the difterential behavior associated with categories such as nationalism, social class, income distribution, and political or religious affiliation.

## SOC 3000 THE SCOPE OF SOCIOLOGY

Introduction to the field of sociology, with particular emphasis on scope and limitations. Basic but major divisions of the discipline are introduced. Vocabulary, conceptualizations, research approaches and vocational opportunities are reviewed. The relationship of theory and empirical study is stressed. (Also recommended for non-majors.)

## SOC 3001 THE BASIC IDEAS OF SOCIOLOGY

The course introduces the student to the ideas of community, authority, status, alienation, and the sacred, as used in sociological literature

## SOC 3020 SOCIAL PROBLEMS

An introduction to the concept of a social problem and the approaches used to understand more fully the total dimensions of some specific problems. Special emphasis is given to clarifying one's understanding of the underlying nature of selected social problems, an analysis of those aspects amenable to remedy, and an inventory of the knowledge and skills available

## SOC 3110 SOCIAL DEVIANCY (DEVIANT BEHAVIOR)

The study of behavior that counters the culturally accepted norms or regularities. The social implications of deviancy are reviewed, and theoretical formulations regarding deviant behavior are analyzed.

## SOC 3130 DELINQUENCY

An analysis of behavior which is extra-legal, with major concentration on its appearance among young people (juveniles) and society's response. Particular emphasis is given to the dynamic thrusts being made in establishing juvenile rights as a distinct part of human or civil rights.

## SOC 3150 CRIMINOLOGY

An introduction to the study of criminal behavior, its evidence in society, society's reaction to the subjects involved, and the current state of theoretical thought on causality and treatment.

## SOC 3201 SOCIAL INSTITUTIONS/ORGANIZATION

An introduction to more formalized behaviors that tend to provide accepted, orderly, and enduring procedures tor groups which have more than narrow interests, and which perpetuate themselves. These institutionalized ways of behavior are associated with specific institutions and studied comparatively.

## SOC 3281 SCHOOL AND SOCIETY

A specialized course dealing with the place of schools (particularly public) in society, the import of social criteria for school personnel, and the influence of such criteria on educational processes within the school system (institution).

The social group known as the community is identified and analyzed for its distinctive qualities. By distinguishing it from other social groups, its dominating lorce on the behavior of its members is isolated. Attention is given to the interaction of individuals and groups as they exist within the community

## SOC 3380 COMMUNITY SOCIOLOGY COURSES

Special courses dealing with community programs such as Model Cities, voluntary organizations, United Fund, inner city schools, public service agencies. Faculty members come from community agencies, and course work focuses on local problems

The study of major shifts in focus for societies or culture, and the indicators associated with such changes. Particular attention is given to the development of industrial societies and the dynamics involved for nations emerging from various stages of "underdevelopment".
SOC 3424 THE SOCIAL SYSTEM
The study of society as a system, the benefits of such a conceplual approach, and related theoretical constructs.
SOC 3500 RESEARCH METHODS
An introduction to the scientific method and its application to anthropological and sociological research.
Topics include: formulation of research problems; research design; field methods and collection of data; hypothesis testing and interpretation of results.
SOC 3610 SOCIOLOGICAL THEORIES
Examines the emergence of sociology as the study of social relations. Compares and contrasts the work of selected theorisls, with respect to their methodologies, treatment of the emergence and consequences of modern society, political sociology, conception of social class, and analysis of the role of religion in society. The student is expected to gain in-depth knowledge of opposing theories, as well as an appreciation of the contingent nature of sociological theories.
SOC 3820 SMALL GROUPS
Survey of small group sludies, their development and the associated theoretical schools of thought. The significance of small group studies for social theory is evaluated.

## SOC 3828 HUMAN INTERACTION LABORATORY

Laboratory designed for those persons seeking to increase their effectiveness in task-oriented problemsolving work groups. It explores processes for personal growth and development and human group interaction.
SOC 3830 THE INDIVIDUAL IN SOCIETY
Introduction to the study of the individual as a social being, with particular emphasis on man's social origins, human perceptions, and the interaction of the individual and the group within society.
SOC 3850 COLLECTIVE BEHAVIOR
The study of human behavior as found in relatively unstructured forms, such as crowds, riots, revivals, public opinion, social movements and fads. The interplay of such behavior and the rise of new norms and values is analyzed.
SOC 3949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES
A student majoring in one of the Social Sciences (Economics, International Relations, Political Sciences, Sociology, or Psychology) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.
SOC 4002 BASIC ASSUMPTIONS OF SOCIOLOGY
An analysis of the basic assumptions underlying the different perspectives in sociology and anthropology.
SOC 4003 SOCIOLOGY OF THE 20th CENTURY
An examination of the sociological implications evident in the events of our modern world. Heavy reliance is placed on intellectual materials other than social science, expecially literature.

## SOC 4004 SOCIOLOGY THROUGH FILM

## SOC 4211 SOCIOLOGY OF RELIGION

The study of religious institutions, their structure and function in various societies. Leadership qualities, participation and practices, and the relationship of religious institutions to other social institutions are studied.
SOC 4214 SEMINAR IN RELIGION AS A SOCIAL INSTITUTION
An upper-level seminar in which two or more religious systems are compared in terms of their social origins and social-political consequences. Emphasis on the socio-economic-political impact of particular religious institutions such as the Black church in the United States, revitalization movements among Third World peoples, etc.
SOC 4221 POLITICAL SOCIOLOGY
The underlying social conditions of political order, political process, and political behavior are explored.
Examples are drawn from empirical and theoretical studies of power, elites, social class and socialization.
SOC 4230 SOCIOLOGY OF MEDICINE
The social organization of medical institutions and the social factors associated with incidence of physical/mental illness and its treatment. Opportunity available for students to pursue specialized interests related to public needs and medical services.
SOC 4243 SOCIOLOGY OF DEATH
An introduction to "death" as social phenomenon. Attention given to various approaches which systematically study death, with primary emphasis given to the sociological approach. Major attention is given 10 an exploration ol attitudes toward death, and an assessment of the implications for the respective groups involved.

An analysis of psychotherapy from the sociological perspective. The effect of therapy on society and its functioning in society are analyzed. Comparable institutions in other societies are examined.

The study of contemporary society, man's role in it, and effects of technological change. A study of interrelationships, with special attention given to vocational study and instruction within the framework of the relationships perceived

## SOC 4406 THE PROBLEM OF BUREAUCRACY IN THE MODERN WORLD

The course deals with: the micro-sociological problems of the internal organization of bureaucracies; the relation between bureaucracy and personality; the macro-sociological problems of the emergence of the bureaucratic form; bureaucratization and contemporary life; general problems of affluence; meaningless activity; ways to beat the bureaucracy; and bureaucracy and atrocity.

## SOC 4407 MACRO-SYSTEM CHANGE LABORATORY

This laboratory uses a macro-systems approach to develop an understanding of human behavior and processes of social change operating on organizational, institutional, community and national levels.

## SOC 4408 HEROIC ELITES

A seminar devoted to attempts by selected Third World leadership groups to resolve perceived problems of underdevelopment and imperialism. Ideological justifications for such activities are analyzed. Prerequisites: ASC 3610 (SOC 4003, SOC 4613 recommended). Permission of instructor required.
SOC 4410 SOCIAL STRATIFICATION (MOBILITY)
The study of society structured hierarchically, with particular attention to the form and content of the various levels. Problems in the social order and differential human behaviors associated with stratitication are analyzed.

## SOC 4423 COMPARATIVE SOCIAL SYSTEMS

The study of varied social systems, particularly as to those qualities regularly occurring in each and those which differ. Such variables are then analyzed for associational correlates to the systems studied.

## SOC 4428 PRECAPITALIST SOCIAL STRUCTURES

## SOC 4440 SOCIAL CONFLICT

The study of conflict in sociely and its place in social relationships. A study of causes and resolutions, with particular emphasis on methods of resolution and their influence on social change.

## SOC 4463 IMPERIAL DEVELOPMENT

A seminar devoted to study of the relationship between colonialism and development in the contemporary Third World. Prerequisites: SOC 3010 (SOC 4003, SOC 4613 recommended). Permission of instructor.
SOC 4464 SOCIOLOGY OF THE UNDERPRIVILEGED SOCIETIES
An examination of the various theories concerning what is happening in the "underdeveloped world." The political, social, and economic events of these societies are subjected to sociological analysis.
SOC 4475 SEMINAR IN ETHNICITY
An upper-level seminar, stressing a comparative sociological approach to the study of two or more racialethnic groups. Emphasis on interrelations of ethnic communities within the same society and the sociopolitical effects of these interrelations. Prerequisite: Minorities, SOC 4745, or permission of Dept.

## SOC 4480 SOCIOLOGY AND SOCIAL PLANNING

An analysis of sociological concepts, and their application to planning processes of society and its subunits. Planning processes are critically reviewed for evidences of such application. Both micro and macro planning processes are correlated to specific sociological units of analysis.

## SOC 4490 AREA STUDIES: SOCIAL STRUCTURES AND PROBLEMS

Special courses on the social structures and related problems of specific geographical and cultural areas. To be offered at various times.

## SOC 4504 BASIC RESEARCH DESIGN

Advanced course in social research, providing research practicum for studying patterns of human behavior: analyzing findings of studies, methodical and analytical procedures; reporting and explaining these results; and applying these inferences to concrete situations. Also acquaints the student with the use of computers in research in the behavioral sciences.
SOC 4540 HISTORICAL SOCIOLOGY
The authenticity and meaning of historical data for sociological research. Systematic theories in history are analyzed for their utility in sociology. Particular emphasis on the sociological uses of the comparative method in history.

## SOC 4550 SEMINAR IN THE SOCIAL SCIENTIST'S ETHICS

An upper-level seminar emphasizing ethical considerations of import to the peculiar role and function of sociologists and anthropologists. Special attention to the interrelation of specific social scientific studies and their moral consequences, domestic and international. Prerequisite: SSI 3303.

An analysis of various classical and current sociological theories, with particular attention paid to their conceptions of man in society and the wider implications such conceptions have. The theories of Durkheim, Parsons, Weber, Goffman, Bendix and Dahrendorf are examined.

## SOC 4613 SOCIAL THEORY AND THIRD WORLD INNOVATIONS

An examination of the contributions to social theory by intellectuals of the Third World. Particular attention is paid to theory derived from classical Marxism.

## SOC 4620 COMPARATIVE SOCIOLOGY

A cross-cultural and cross-national survey of sociological studies, with particular emphasis on theoretical and methodological issues. Examples will be drawn from studies on culture patterns, social structures, sexual mores, power relationships and the ethical implications of cross-national research.
SOC 4640 INTELLECTUAL PRECURSORS OF SOCIOLOGY
An analysis of social ideas from which sociology emerged. The ideas of Aristotle, Hobbes, Rousseau, and
Marx, among others, will be discussed as contributions to the emergence of sociology.

## SOC 4652 SOCIOLOGY OF SOCIOLOGY

An analysis of the disciplines of sociology and anthropology, using the tools developed by those disciplines themselves. The political, social and economic contexts of the field are examined to see how the discipline is used, for what advantages, and to what effect.

## SOC 4653 SOCIOLOGY OF UTOPIA

An analysis of Utopian thinking in sociology and anthropology, as well as the sociological implications of Utopianism.
SOC 4705 THE ROLE OF WOMEN IN CONTEMPORARY SOCIETY
A concentrated study of women in society, addressing role origins and their development in contemporary society. Particular attention given to how such behaviors become normalized and the rapidity with which they change.
SOC 4741 COMPARATIVE SLAVE SOCIETIES

## SOC 4745 MINORITIES/RACE AND ETHNIC RELATIONS

The study of social groups identified by racial or ethnic characteristics. Particular emphasis is given to the role of minorities in society, and the interactive process resulting from their contact with the majority. Social behaviors of minorities are reviewed and related to institutional structures and their accepted norms.
SOC 4746 SOCIAL CONFLICT IN MULTI-ETHNIC SOCIETIES
Cases are selected from a variety of societies with differing types of majority-minority situations. Prejudice and discrimination are seen as weapons in group and class conflict. The consequences of prejudice are analyzed in terms of the costs to every group in the society.

## SOC 4829 ETHNOMETHODOLOGY

## SOC 4833 ROLE THEORY

An analysis of the relation between man and society, from the perspectives of role theory. The course explores the effect society has on individual biography and action.
SOC 4835 CLINICAL SOCIOLOGY
The problems of alienation, anomie, and happiness will be analyzed. A third position between social work and social change will be sought. Personal adjustment, social revolution, and individual calculation will be weighed as responses to the demands of social life.
SOC 4841 MASS CULTURE

## SOC 4842 SYMBOLS AND SOCIETY

An analysis of the effect of culture on the individual and on society. The roles of popular and intellectual culture will be examined.

## SOC 4905 DIRECTED INDIVIDUAL STUDY

## SOC 4931 HONORS SEMINAR

Permission of instructor required.
SOC 4941 DIRECTED FIELD RESEARCH
SOC 4949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES
A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend several quarters lully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.
SOC 5140 SOCIOLOGY OF LAW AND LEGAL PROCESSES methods of resolution, and an assessment of prevailing approaches. Attention is given to the historical roots of labor's development as a distinct social entity, and the tensions precipated within different societies and their varied economic and political systems.
SOC 5284 SOCIOLOGY OF EDUCATION
An analysis of education as a social process and the interrelationship of educational systems and society.
The study of education as a socialization process; the social structure of education, and its role as an agent in social change.
SOC 5316 ADVANCED URBAN SOCIOLOGY
A concentrated study of urban problems. Emphasis given to social policy and the role of public and private agencies in sustaining, administratıng, and changing such policy. Urban problems are studied as an intermix ol social, cultural, political, and economic factors. Methods of social cost analysis are discussed.

## SOC 5652 SOCIOLOGY OF ART AND LITERATURE (MODERN)

The study ol the theoretical basis of knowledge and the inter-relatedness of knowledge and social factors, particularly as knowledge relates to institutional forms of behavior.
SOC 5909 DIRECTED INDIVIDUAL STUDY

An introduction to anthropology, psychology, and sociology; a survey of the similarities and differences in history, philosophy, and goals and techniques of research in these disciplines; and a review of modern interdisciplinary efforts.

## SSI 3303 ETHICAL ISSUES IN SOCIAL SCIENCE RESEARCH

An introduction to the problems of possibilities of ethical premises in the perspectives and work of social scientists. Examination of historical interrelationships between moral philosophies and developing scientific methodologies. Analyses of contemporary social ethicists' attempts to assume moral postures while examining social relations. Case studies involving issues such as nation building in areas of accelerated change including Alrica and Asia

# VISUAL ARTS MAJOR 

Francis Wyroba, Professor and Chairperson
James M. Couper, Associate Professor
Ellen Jacobs, Associate Professor

William Burke, Assistant Professor
R. F. Buckley, Assistant Professor

William Maguire, Assistant Professor

Campus Location: Tamiami Campus Only
DEGREE: Bachelor of Fine Arts

## LOWER DIVISION PREPARATION:

Required Courses: 6 semester hours of art survey or departmental exam; 6 semester hours of design or acceptable portfolio; 6 semester hours of drawing; 6 semester hours of beginning studio.
Recommended Courses: painting, sculpture, printmaking, ceramics, photography, weaving, cinematography.
Remarks: The student who does not have an A.A. degree and/or who lacks proficiency in required courses will be expected to take more than 90 quarter hours to complete the bachelor's degree, or to make up courses at the lower division level.

## UPPER DIVISION PROGRAM:

| Required Courses: |  | Quarter Hours |
| :---: | :--- | ---: |
| ARH 4470 | (Contemporary Art) | 5 |
| ARH 4800 | (Criticism) | 5 |
|  | Art History Elective | 5 |
|  | Studio Major | 25 |

## Electives:

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

ARH-Art History; ART-Art; HUM—Humanities.

## ARH 3009 SURVEY OF CONTEMPORARY ART

A survey of the most recent developments in the lields of visual arts and architecture, through lectures, films and speakers. Open to all students.
ARH 4170 GREEK AND ROMAN ART
Lectures, slides, visitors and student research.
ARH 4301 RENAISSANCE ART
Lectures, slides, visitors and student research.

## ARH 4410 MODERN ART

Lectures, slides, visitors and student research
ARH 4431 NINETEENTH CENTURY PAINTING
A study of the various challenges offered artists at the beginning of the nineteenth century, and of subsequent solutions created by painters, in America, England, France, Germany and Italy. Styles such as neoclassicism, romaticism, realism, eroticism, pre-rephaeliticism, luminism and impressionism will be examined.
ARH 4470 CONTEMPORARY ART
Lectures, slides, visitors and student research.

## ARH 4552 ART OF CHINA AND JAPAN

An introduction to the art of China to the Ming Dynasty, and of Japan through the 18th century. The emphasis will be on painting and sculpture, with some ceramics and architecture.

## ARH 4610 AMERICAN ART

Lectures, slides, visitors and student research.

## ARH 4800 THEORY AND CRITICISM

ARH 4905 DIRECTED STUDIES
A group of students, with the approval of the art faculty, may select a master teacher of theory, research, or criticism in selected areas as film, painting, sculpture, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a quarter belore course is offered. (May be repeated.)

## ARH 4910 RESEARCH

(VAR) (F,W,S,SS)
Art history, criticism, and theory in areas not covered by the present program and which the student wishes to study. (Permission of instructor required. May be repeated).
ARH 4931 WOMEN AND ART
(5) (S)

Women in the history of art; past, present and future. Slides, lectures, films, panels and discussions.
ARH 5172 GREEK AND ROMAN ART
See ARH 4170
ARH 5303 RENAISSANCE ART (VAR)
See ARH 4301.
ARH 5412 MODERN ART (VAR)
See ARH 4410
ARH 5432 NINETEENTH CENTURY PAINTING (VAR) See ARH 4431
ARH 5470 CONTEMPORARY ART
ARH 5552 ART OF CHINA AND JAPAN (VAR) See ARH 4552.
ARH 5615 AMERICAN ART
ARH 5812 THEORY AND CRITICISM
ARH 5907 DIRECTED STUDIES

A creative approach to labrıcs and libers, using processes such as dyeing, embroidery, quiling, solt sculpture, batik, on and off loom weaving, etc. (May be repeated).
ART 3150 JEWELRY AND METALS
(5) (F,W,S,SS)

A study ol basic metal techniques and strengthening of three-dimensional design concepts for the beginner. The advanced student will explore the more difficult technical aspects of areas such as hollow ware, enameling, casting, and stone setting. (May be repeated).

## ART 3223 GLASS BLOWING

(5) (W,S)

A basic course in oft-hand glass blowing, concerned with preparing, forming, and finishing glass; understanding ol glass as an art form; operation and maintenance of a glass studio. (May be repeated).

## ART 3310 DRAWING

(5) $(F, W, S)$

Drawing will be considered as an essential part of every art student's curriculum. Depending on his lower level work, a student will be encouraged to take at least one drawing course at the University. Oft-campus studio work may be arranged. (May be repeated).
ART 3331 FIGURE DRAWING (5) (F,W,S,SS)
Drawing from the model during assigned studio time. Open to all students (May be repeated).
ART 3401 PRINTMAKING
(5) (F,W,S,SS)

With a knowledge of basic intaglio and reliel printing, the student will explore specific media such as etching, lithography, silk-screen, and other experimental fechniques. (May be repeated).

## ART 3510 PAINTING <br> (5) (F,W,S,SS)

A study, through the use of visual aids and individual criticism, of the student's work. Any media may be used (May be repeated.)

## ART 3601 PHOTOGRAPHY

(5) $(F, W, S, S S)$

With a knowledge of beginning developing, printing, and use of a camera, the art student will pursue his own direction with emphasis on individual approach, print quality, use of equipment, and criticism. (May be repeated.)

## ART 3630 INTRODUCTION TO FILMMAKING

For the beginning student of filmmaking. Survey of the origins and development of cinematography as an art form. Presentation and technical analysis of selected films.

## ART 3631 FILM PRODUCTION I

Conceptual study of fotal filmmaking. Equipment, procedures, locations, sets, actors, and production staff will be examined from the point of view of the director. Student will conceptualize, shoot and edit a short film. Prerequisite: ART 3630, or permission of the instructor. (May be repeated.)

## ART 3651 VIDEO ART

Studio experience in conventional and experimental video processing, with an emphasis on relating contemporary developments in art theory and criticism. An infernational exchange video tape bank and color-capable television facilities will be available (May be repeated.)

## ART 3702 SCULPTURE

(5) (F,W,S,SS)

With a background in beginning sculpture, the student will develop standards of excellence, both in concept and technique, with stress on individual expression. An equipped shop will be available to the student. (May be repeated.)

## ART 3904 DIRECTED STUDY

(VAR) (F,W,S)
A group of students, with the approval of the Art Department faculty, may select a master artist leacher and pursue a course of art study in selected areas such as graphic design, film, multi-media, environmental design, sound, eic. Arrangements must be made at least one quarter before course is offered. (May be repeated.)

## ART 3905 RESEARCH

(VAR) (F,W,S,SS)
Students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credit hours granted. (May be repeated.)
ART 4114 CERAMICS
(5) (F,W,S,SS)

The advanced student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisite: ART 3111, or permission of the instructor. (May be repeated.)
ART 4133 FABRICS AND FIBERS
(5) $(F, W, S)$

See ART 3133.
ART 4151 JEWELRY AND METALS
(5) (F,W,S,SS)

See ART 3150 .
ART 4223 GLASS BLOWING
(5) (W,S)

See ART 3223.
ART 4320 DRAWING
(5) (F,W,S)

See ART 3310.
ART 4332 FIGURE DRAWING
(5) (F,W,S,SS)

See ART 3331.
ART 4402 PRINTMAKING
(5) (F,W,S,SS)

See ART 3401.
ART 4532 PAINTING
(5) (F,W,S,SS)

See ART 3510.
ART 4604 PHOTOGRAPHY
(5) (F,W,S,SS)

See ART 3601.

ART 4955 THESIS AND PORTFOLIO
(5) (F,W,S,SS)

Work in the student's major area in a studio situation, resulting in a student exhibit. Arrangements must be made at least 3 quarters in advance of expected graduation date. Prerequisite: 25 hours of one studio area.
ART 5125 CERAMICS
(VAR) (F,W,S,SS)
See ART 4114.
ART 5133 FABRICS AND FIBERS
(VAR) (F,W,S)
See ART 3133.
ART 5159 JEWELRY AND METALS
(VAR (F,W,S,SS)
See ART 3150.
ART 5223 GLASS BLOWING
(VAR) (W,S)
See ART 3223.
ART 5340 DRAWING
(VAR) (F,W,S)
See ART 3310.
ART 5341 FIGURE DRAWING (VAR) (F,W,S,SS)
See ART 3331.
ART 5403 PRINTMAKING (VAR) (F,W,S,SS) See ART 3401.
ART 5580 PAINTING (VAR) (F,W,S,SS)
See ART 3510.
ART 5620 PHOTOGRAPHY
(VAR) (F,W,S,SS)
See ART 3601.
ART 5660 VIDEO ART (VAR)
See ART 3651.
ART 5730 SCULPTURE See ART 3702.
ART 5907 DIRECTED STUDY
(VAR) (F,W,S,SS)
See ART 3904.
ART 5910 RESEARCH See ART 3905.
(VAR) (F,W,S,SS)
HUM 3949 COOPERATIVE EDUCATION IN HUMANITIES
A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

## HUM 4949 COOPERATIVE EDUCATION IN HUMANITIES

A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend several quarters fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Cooperative Education Program and major department.

# CARIBBEAN-LATIN AMERICAN STUDIES CERTIFICATE PROGRAM 

Director: Mark Rosenberg (Political Science)
Coordinating Committee: A. Maingot (Sociology), F. Maurrasse (Physical Sciences), R. Moncarz (Economics), M. Szuchman (History)

## Campus Location: Tamiami and North Miami

The Caribbean and Latin American Studies Certificate Program at Florida International University represents one way in which the University fulfills its commitment to furthering international understanding. The Certificate Program encourages students to take an interdisciplinary approach to the study of the Caribbean and Latin America. The Certificate is awarded to both degree and non-degree-seeking students who have successfully completed the Certificate requirements (see below). For students pursuing a bachelor's degree, the Cer-
tificate Program should be understood as a complement to the students' regular major area or discipline of study. For non-degree-seeking students, the Certificate Program represents one way in which a fuller, more complete understanding of the Caribbean and Latin America can be gained without pursuing a full course of study at the University.

A degree-seeking student interested in the Certificate Program should consult with the Certificate Director, who will assign the student a faculty advisor familiar with both the major requirements and the Certificate requirements. The Department advisor will meet with the student prior to each quarter's registration period in order to facilitate the student's progress toward the Certificate. Non-degree-seeking students should consult directly with the Director of the Certificate Program, who will then assign an advisor with similar interests to those of the student.

Upon completion of the Certificate requirements, the student's advisor will sign the completed Certificate course form and it will be transferred to the Certificate Director, who will award the Certificate.

The Certificate Program is one of the activities of the Caribbean-Latin American Studies Council (CLASC) in the College of Arts and Sciences. As one of its functions, the Council promotes and integrates courses that have primary content on the Caribbean and/or Latin American areas. The courses to be included in the Certificate Program will reflect the expertise of the faculty in the College, and will therefore vary over the years.
Certificate Requirements (Total of 30 quarter hours):

1) A minimum of 25 quarter hours with a grade of " C " or better in courses certified by the Program. Courses must be taken from at least three different departments.
2) The introductory language sequence in Spanish, Portuguese, or French; or exemption through demonstrated proficiency as determined by the Department of Modern Languages. (The language sequence will not count toward the 30 quarter hour requirement.)
3) 5 quarter hours of independent study under faculty supervision, during which a research paper will be written.
After fulfilling all requirements, students will participate in a colloqium with the faculty to discuss their research

The following courses are currently being offered by the College and fulfill Certificate requirements. These courses should not be understood as a complete list; students should consult with their Certificate advisors or with the Director of the Certificate Program about current course offerings.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

ANT-Anthropology: CPO-Comparative Politics; ECO-Economics; ECS—Economic Systems \& Development; FRE-French Language; FRW—French Literature (Writings); DEA-Geography - Regional (Area); GLY-Geology; INR-International Relations; LAH—Latin American History; PHH—Philosophy, History of; POW-Portuguese Literature (Writings); REL—Religion; SOC-Sociology; SPN-Spanish Language; SPW-Spanish Literature (Writings).

## ANTHROPOLOGY

ANT 3144 PREHISTORY OF THE AMERICAS
ANT 3251 PEASANT SOCIETY
ANT 4324 MANY MEXICOS
ANT 4332 LATIN AMERICA
ANT 4340 CULTURES OF THE CARIBBEAN
ANT 4343 CUBAN CULTURE AND THE REVOLUTION
ANT 4362 MAYA CIVILIZATION
ANT 4930 RESEARCH IN MAYA CIVILIZATION
EARTH SCIENCES
GLY 3157 ELEMENTS OF CARIBBEAN GEOLOGY GLY 4190 CARIBBEAN EARTH SCIENCES SEMINAR GLY 4792 CARIBBEAN MINERAL RESOURCES FIELD TRIP

BLY 5620 CARIBBEAN STRATIGRAPHIC MICROPALEONTOLOGY GLY 5793 CARIBBEAN SHALLOW-MARINE ENVIRONMENTS

## ECONOMICS

ECO 4733 MULTINATIONAL CORPORATIONS
ECS 3402 THE POLITICAL ECONOMY OF SOUTH AMERICA
ECS 3440 ECONOMICS OF CENTRAL AMERICA
ECS 4013 ECONOMIC DEVELOPMENT
ECS 4403 THE LATIN AMERICAN ECONOMIES
ECS 4403 LAS ECONOMIAS LATINOAMERICANAS
ECS 4404 ECONOMIC INTEGRATION - LATIN AMERICA
ECS 4430 THE ECONOMIC DEVELOPMENT OF CUBA - PAST AND PRESENT
ECS 4432 ECONOMIC INTEGRATION - CARIBBEAN
ECS 4433 ECONOMICS OF THE CARIBBEAN

## HISTORY

LAH 3410 MEXICO AND THE CARIBBEAN
LAH 3482 MODERN CUBA
LAH 4132 COLONIAL LATIN AMERICA: THE FORMATIVE PERIOD LAH 4133 COLONIAL LATIN AMERICA: THE MATURE PERIOD
LAH 4201 LATIN AMERICA: THE 19TH CENTURY
LAH 4300 LATIN AMERICA: THE MODERN PERIOD
LAH 4474 TOPICS IN CARIBBEAN HISTORY
LAH 4932-EDF 4521 -HIS 4306 TOPICS IN LATIN AMERICAN HISTORY
INTERNATIONAL RELATIONS
CPO 3326 POPULATION AND GEOGRAPHY OF THE CARIBBEAN GEA 3400 POPULATION AND GEOGRAPHY OF LATIN AMERICA INR 3245 INTERNATIONAL RELATIONS OF LATIN AMERICA INR 3246 INTERNATIONAL RELATIONS OF THE CARIBBEAN INR 4247 CARIBBEAN REGIONAL RELATIONS

## MODERN LANGUAGES

The following courses may be taken in French (FRE), Portuguese (POR), or Spanish (SPN):
FRE 3500 , SPN 3500 CIVILIZATION I
(Caribbean-Latin American course)
FRE 4501, SPN 4501 CIVILIZATION II
(Caribbean-Latin American course)
FRW 3520, SPW 3520 PROSE AND SOCIETY
(Caribbean-Latin American course)
FRW 3580 SPW 3580 INTELLECTUAL HISTORY
(Carıbbean-Latin American course)
POW 4930 SPECIAL TOPICS
(Caribbean-Latin American course)

## PHILOSOPHY AND RELIGIOUS STUDIES

PHH 3042 LATIN AMERICAN PHILOSOPHIES
REL 4481 CONTEMPORARY LATIN AMERICAN RELIGIOUS THOUGHT
POLITICAL SCIENCE
CPO 3303 GOVERNMENT AND POLITICS OF SOUTH AMERICA
CPO 3304 THEORIES OF LATIN AMERICAN POLITICS
CPO 3323 GOVERNMENT AND POLITICS OF THE CARIBBEAN
CPO 3333 GOVERNMENT AND POLITICS OF CENTRAL AMERICA
CPO 4005 TOPICS IN COMPARATIVE POLITICS
CPO 4055 AUTHORITARIANISM
CPO 4327 TOPICS IN CARIBBEAN POLITICS
CPO 4360 CUBAN POLITICS
INR 4244 LATIN AMERICA IN INTERNATIONAL POLITICS

# CONSUMER AFFAIRS CERTIFICATE PROGRAM 

Director: Milton L. Blum (Psychology)<br>Coordinating Committee: Myrna Crabtree (Home Economics), Samuel Shapiro (Mathematical Sciences), Ronald Tikofsky (Psychology).<br>Campus Location: Tamiami Campus only<br>With the collaboration of all the academic units and the approval of the Vice President for Academic Affairs, the Consumer Affairs Institute administers a Consumer Affairs Interdisciplinary Certificate Program, sanctioned by the College of Arts and Sciences of Florida In- ternational University.

The increasing number of issues and conflicts involving consumers, business, government, and labor demand study and research so that more appropriate resolutions can be achieved. The Certificate Program in Consumer Affairs is intended to provide a sound educational base for those dealing with consumer affairs matters - be they buyers or sellers. The courses leading to the Certificate can serve those pursuing careers in consumer affairs, and provide personal benefit to individuals in their roles as consumers.

The Certificate Program is intended to provide business, government, indusiry, and labor with a resource for educating selected personnel in a broad range of subject matter related to consumer affairs.

A Certificate in Consumer Affairs will be awarded upon satisfactory completion of thirty credits from the courses listed in the Certificate requirements. Completed courses are recorded on a university transcript. These courses may be taken by Special Students with the advice of the Certificate Program Director. Special Student enrollment and course registration can be completed simultaneously at the time of registration. Students can be admitted to the Program at the beginning of any quarter.

## COURSE DESCRIPTIONS

## definition of prefixes

COA-Consumer Affairs; ECO-Economics; EVR—Environmental Studies; FOS—Food Science; HUN-Human Nutrition; MAR—Marketing; PHI-Philosophy; PSY-Psychology; PUP—Public Policy; SOP-Social Psychology.
REQUIRED COURSES: Twenty(20) credits are to be chosen from the following courses:

## COA 3410 CONSUMER RESOURCES

Evaluation of information needed by consumers to make wise spending decisions, including sources of consumer help, information and protection. Experiences in product comparison provided.

## COA 4440 CONSUMER COUNSELING

Application of consumer and management knowledge and skills in financial decision making. Case study approach. Prerequisites: COA 3130, COA 3410, COA 3411; permission of instructor.
COA 4460 CONSUMER AND TECHNOLOGY
Study of the interrelationship of the consumer and the industrial/business community, including the roles and responsibilities of each. Special topics include the effectiveness of decisions on product cost, life styles and the environment; as well as the role of government in the marketplace.
COA 5450 CONSUMER LEGISLATION
Presentation of scope, enforcement and problems related to consumer law at the local, state and federal levels.
PSY 4941 INDEPENDENT FIELD EXPERIENCE IN PSYCHOLOGY
(VAR)
Consumer internship or equivalent. With permission of the Certificate Program Director, and in cooperation with the student's major department.

ELECTIVE COURSES: Ten (10) credits are to be chosen from the following courses. However, in addition, the student may be permitted to select alternative consumer-oriented courses in his or her major department of study.

## ECO 3043 CONSUMER ECONOMICS

Ettects ol public policy on family incomes and expenditure patterns. Consumer behavior, advertising, and other influences alfecting demand. The consumer protection movement.
EVR 3011 ENVIRONMENTAL SCIENCE
For non-science majors. An introduction to the fundamental principles and concepts of ecology; and to air pollution and water resources.
EVR 3012 ENVIRONMENTAL SCIENCE II
For non-science majors. An introduction to energy resources and conservation; agricultural pollution; noise pollution: and solid waste problems.
FOS 3004 FOOD AND THE CONSUMER
Survey of nutrition information relating to problems and issues of concern to today's consumers.
HUN 3122 NUTRITION AND CULTURE
Nutrients and their interrelationships, in reference to food habits and needs of various population groups.
Introduction to the impact of culture on nutriture; and study of personal food pattern development.
MAR 4503 CONSUMER BEHAVIOR
The consumer as the basis for development of marketing programs by business organizations.
PHI 4631 ETHICAL ISSUES IN BUSINESS
Ethical dimensions of current problems and issues facing the worker or business manager.
PUP 4203 ENVIRONMENTAL POLITICS AND POLICY
Steps in the environmental policy-making process whereby private preferences are transformed into public policy.

# ETHNIC STUDIES CERTIFICATE PROGRAM 

Director: John F. Stack, Jr. (Political Science).
Coordinating Committee: Ralph S. Clem (International Relations), Anthony P. Maingot (Sociology/Anthropology), Mark D. Szuchman (History).
Campus Location: Tamiami Campus only
The College of Arts and Sciences offers the student a program in ethnic studies, in recognition of the place ethnic studies enjoys in the social sciences and humanities, and the importance of ethnic studies in today's world. The program seeks to establish a proper balance between its academic goals and objectives and the ongoing concerns of the University's local and international constituencies. The Program contains four specialized areas: Black Studies, Jewish Studies, Cuban Studies, and Comparative Studies.

The Certificate in Ethnic Studies is awarded with a bachelor's degree, or, upon completion of Certificate requirements, to a student who already possesses that degree. The Certificate diploma will specify the area of concentration chosen by the student.

A student may acquire the Certificate in Ethnic Studies by fulfilling the following requirements:

General Requirements

1. A minimum of 30 quarter hours with a grade of "C" or better.
2. Courses in both the "Core" and "Specialized" areas (indicated below) must be taken from at least two different departments.
3. A maximum of 5 quarter hours in a relevant language will be accepted.
4. A maximum of 10 hours of independent study will be accepted.
5. The Program Director must approve the student's overall plan and all special topics courses must be approved by Certificate advisors in each area.
The Program is especially eager to encourage programs of study abroad and field work in general. Credit for such programs will be awarded on an individual basis after evaluation by the Director and the Coordinating Committee, but in no case will it consist of more than 15 credit hours towards the Certificate.

Specific Requirements

1. A core of a minimum of two to three courses of a theoretical and conceptual nature in the area of ethnic studies
2. A minimum of three to four specialized courses in one of the four distinct areas:
a) Black Studies
b) Jewish Studies
c) Cuban Studies
d) Comparative Studies

## DEFINITION OF PREFIXES

AML-American Literature; ANT-Anthropology; ECP-Economic Problems and Policy: ECS-Economic Systems and Development; FOL - Foreign and Biblical Languages; GEA-Geography - Regional Area; HIS-History - General; INR-International Relations; LAH—Latin American History; LIT-Literature MUH-Music: History/Musicology; POS—Political Science; PUP—Public Policy; REL—Religion; SOC-Sociology; SOP-Social Psychology

Core Courses: SOC 4745 or ANT 4451: "Minorities"; PUP 4314: "Ethnic Politics"; INR 4084: "Ethnic Conflict in Transnational Politics"; INR 4024: "Ethnicity and Nationality"; ECP 3144: "Economics of Race and Sex Discrimination"; SOP 4444: "Attitudes and Ethnicity". Specialized Courses: (Note: this is not an exhaustive list; students should consult with the Director of the program on current offerings.

## Specialized Courses in Cuban Studies

ECS 4430 The Economic Development of Cuba
FOW 4390 Genre Studies (with reference to Cuban Literature)
INR 3246 International Relations of the Caribbean
LAH 3930 Cuban History
SOC 4331 Latin American and Caribbean Social Structures
SOC 4613 Third World Theory
Specialized Courses in Black Studies:
AML 5212 Major American Literary Figures
ANT 4315 Afro-American Anthropology
ANT 4352 Area Studies
LIT 4203 Regional Literature in English
LIT 4930 Special Topics
MUH 3116 Evolution of Jazz
SOC 4746 Social Conflict in Multi-Ethnic Societies
Specialized Courses in Jewish Studies:
GEA 3630 Population and Geography of the Middle East
INR 3274 International Relations of the Middle East
POS 4147 Political Urban Jewish Leadership
REL 3224 The Prophets

## LINGUISTIC STUDIES CERTIFICATE PROGRAM

Director: Lynn Berk (English)
Coordinating Committee: Frances Aid (Modern Languages), George Kovacs (Philosophy and Religion), John Staczek (Secondary Education), and Ronald Tikofsky (Psychology) Campus Location: Tamiami Campus Only

The University does not offer an undergraduate degree in linguistic studies, but it does provide a Certificate acknowledging that a student has demonstrated competence in course work pertaining to the study of linguistics. This certificate is designed to meet the needs of those who have a general interest in linguistic studies, as well as those for whom work in linguistics would assist in career planning or advancement.

A student can acquire a Certificate in Linguistic Studies by fulfilling the following requirements:
(1) The successful completion of at least six courses ( 30 quarter hours) in linguistics or linguistic-related courses. These courses are listed below.
(2) Courses must be selected from at least two different departments. It is recommended that courses be selected from three departments. Students should consult their Certificate advisor in selecting courses.
(3) With the advice of the Coordinating Committee, the student is encouraged to attain some degree of proficiency in a language other than his/her native language.
In addition to the requirements noted above, all of the requirements for obtaining a bachelor's degree in the College of Arts and Sciences or in one of the professional schools must be met, including the majors and minors appropriate to that degree.

A Coordinating Committee, representing various fields and consisting of faculty engaged in the teaching of one or more courses in linguistic studies will advise students and grant the Certificate.

A student wishing to earn a Linguistics Studies Certificate will choose courses from the following list of offerings:

## DEFINITION OF PREFIXES

ENG—English, general: FOL—Foreign Languages; FRE-French; LIN-Linguistics; MHF-Mathematics, History \& Foundations: PHI-Philosophy; SPA-Spanish.

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Required Courses
    1. LIN 3010 Introduction to General Linguistics (5 credits OR ENG 3500 English
        Linguistics (5 credits)
    2. FOL 4930 Special Topics: Spanish Grammar (5 credits) OR ENG 4555 Modern
    English Grammar (5 credits)
    3. One of the following courses:
    LIN 3642 Language and Culture (5 credits)
    LIN }4701\mathrm{ Psychology of Language (5 credits)
    LIN 4710 Language Acquisition (5 credits)
    PHI }4221\mathrm{ Philosophy of Language (5 credits)
    PHI 4222 Philosophy of Dialogue (5 credits)
    Remaining courses for the Certificate will be selected from the following list:
    Anthropology
    LIN 3642 Language and Culture (5 credits)
    English
    ENG 3500 English Linguistics (5 credits)
    LIN 4400 Applied Linguistics (5 credits)
    ENG 4555 Modern English Grammar (5 credits)
    ENG 5517 History of the English Language (5 credits)
    Modern Languages
    FRE 3780 Phonetics (5 credits)
    LIN 3400 Applied Linguistics (5 credits)
    LIN 3010 Introduction to General Linguistics (5 credits)
    SPN 3780 Phonetics (5 credits)
    SPN 3840 History of the Language (5 credits)
    FOL 3732 Romance Linguistics (5 credits)
    SPN 4790 Contrastive Phonology (5 credits)
    SPN 4800 Contrastive Morphology (5 credits)
    LIN 4418 Problems in Language Learning (5 credits)
    LIN 4620 Studies in Bilingualism (5 credits)
    Philosophy and Religion
    PHI }4221\mathrm{ Philosophy of Language (5 credits)
    PHi 4222 Philosophy of Dialogue (5 credits)
    Psychology
    LIN 4701 Psychology of Language (5 credits)
    LIN 4710 Language Acquisition (5 credits)
    SPA 5401 Disorders of Language in Childhood (5 credits)
    Mathematics
    MHF 4302 Mathematical Logic (5 credits)
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## SCHOOL OF BUSINESS AND ORGANIZATIONAL SCIENCES

The School of Business and Organizational Sciences offers academic programs leading to the undergraduate degrees of Bachelor of Business Administration and Bachelor of Public Administration, and the graduate degrees of Master of Business Administration, Master of International Business, Master of Public Administration, and Master of Science in Management. These programs are designed to help prepare the student for careers in business, public administration, and other areas of management.

Programs of the School of Business and Organizational Sciences are based on a background of courses in the arts and sciences, followed by a foundation in management policies, institutions, and operations, including study of the basic management tools: analysis and decision-making. Further study in the functional areas of enterprise leads to a thorough preparation in a selected field of specialization.

The School is organized into five departments: Accounting; Finance and International Business; Management; Marketing and Environment; and Public Administration. At the Tamiami Campus there is a central undergraduate advising unit (DM363) and a graduate coordinator (DM362B). These advisors are available to provide detailed information about programs offered by the School. Their telephone number is (305) 552-2781. For students at the North Miami Campus, there are undergraduate and graduate counselors. Their telephone number is (305) 940-5870.

## PROGRAMS OF STUDY

Every student must have a program of study completed by the end of his or her first quarter of attendance. A completed program of study is one that has been filled out and signed by the student, his or her counselor and the appropriate Department Chairperson. If such a program of study is not completed at least three (3) quarters before a student is expected to graduate, the student may not be permitted to register for further classes. Entering students should immediately call (305) 552-2781 Tamiami Campus, or (305) 940-5870 at the North Miami Campus for a counseling appointment. Please note that no more than 20 quarter hours of credit (undergraduate students), or 15 quarter hours of credit (graduate students) may be taken as a special student and applied toward a degree. Courses must be approved in advance by a counselor.

## COUNSELING

As noted above, the School has a centralized undergraduate advising unit with three counselors (DM363) and a graduate coordinator (DM362B) at the Tamiami Campus; and undergraduate and graduate counselors at the North Miami Campus. If, after discussing the matter fully with the counselor and the person in charge of counseling, the student has a question about his or her program of study he or she may contact the Department Chairperson (Accounting) or the Associate Dean (other programs).

## UNDERGRADUATE STUDY: GENERAL INFORMATION

## UNDERGRADUATE STUDY: BUSINESS

A student entering into a bachelor's program of the School is required to have completed the Associate of Arts degree or its equivalent, and is encouraged to bring with him or her some knowledge of accounting, mathematics, computer programming, and economics. The broad liberal arts exposure inherent in the Associate of Arts degree usually enables a student to complete the Bachelor of Business Administration requirements in the equivalent of two years, and to take most of the professional work with Florida International's School of Business and Organizational Sciences. This professional work includes: (1) certain required courses, each
of which is designed to introduce the student to a common body of knowledge, including quantitative analysis, finance and control, administrative theory and practices, the social and legal environment of business and government, and marketing and distribution; (2) courses required for the student's major; (3) approved elective courses; and, (4) pre-core courses (where necessary).

The student entering an undergraduate program of the School of Business and Organizational Sciences is required to meet the following four standards:

1) 90 quarter hours ( 60 semester) completed.
2) grade point average of 2.0 or above.
3) Satisfaction of general University requirements for admission, including, in this case, the general education requirements. The general education requirements are: English composition (9), humanities (9), social science (9), natural science (9), mathematics (4), electives in one or more of the above areas (14), and
4) completion of certain "prerequisite" courses as described below.

The basic program in the School of Business and Organizational Sciences to obtain a BBA degree is 90 quarter hours. Generally, the student completing general education requirements, or making up prerequisite deficiencies at Florida International will add these credits to his or her basic 90 quarter hour program. At a minimum, the student's last 45 hours of courses must be taken at Florida International. All lower division deficiences must be completed during the student's first two quarters at Florida International.

## UNDERGRADUATE STUDY: PUBLIC ADMINISTRATION

The Bachelor of Public Administration degree program is offered for students interested in entering public service upon completion of their undergraduate work, or for those who wish to continue study in public management on a graduate level toward a master's degree. The program is primarily designed and geared toward those who want to develop their knowledge and skills for service in local government agencies.

The undergraduate Public Administration program is available to students whose two years of undergraduate work culminated in the Associate of Arts degree or its equivalent. Students from all areas of study are encouraged to apply to the program. There are three requirements:

1) 90 quarter-hours ( 60 semester hours) completed.
2) grade point average of 2.0 or above.
3) University general education requirements of English composition (9), humanities (9), social science (9), natural science (9), mathematics (4), and electives in one or more of the above areas (14).
The Bachelor of Public Administration program consists of 18 courses ( 90 quarterhours), of which 12 courses ( 60 quarter-hours) are required, and six (6) courses ( 30 quarterhours) are approved electives. All required courses must be taken in the Public Administration program; however students are permitted to take approved elective courses in other departments of the University. The student's last 45 hours of courses must be taken at Florida International, and any lower division deficiencies must be completed during the student's first two quarters at Florida International.

## UPPER DIVISION TRANSFER CREDITS

Previous credit may be considered acceptable for transfer toward upper level academic study in the School if the credit was earned within the last six (6) years, and was designated as junior-senior level credit at an accredited four year or upper level institution, or can be validated by some acceptable measure to verify its equivalence. Students wishing to transfer to the School of Business and Organizational Sciences must be in good standing at their previous school or college.

## CHANGE OF MAJOR

[^2]
## RESIDENCY REQUIREMENTS

A student must complete his or her last 45 quarter hours of course work at Florida International to qualify for the BBA, or BPA degree from the School.

## CREDIT-BY-EXAMINATION

A student registered for a course in the School may, at the discretion of the instructor and department chairperson, and after presenting sufficient justification, attempt credit by examination. The special examination will be given by the course instructor, preferably during the first week of classes to allow registration for another course that academic quarter. A grade of EM will be noted on the course grade roll at the end of the quarter if the student, in the opinion of the prolessor, has passed the special examination.

## COURSE SELECTION AND CLASS LOADS

Generally, a junior level student should concentrate on the 45 quarter hours of core courses (and pre-core courses, if needed). Courses at the 4000 and 5000 levels are normally taken during the senior year, and the student must have the necessary background and/or training before enrolling.

The normal class load each quarter for an undergraduate student is:

|  | Quarter Hours* |
| :--- | :---: |
| Full-time attendance | 15 |
| Working part-time | 10 |
| Working full-time | 5 |
| *Unusual circumstances combined with high |  |
| scholarship may warrant an exception - which |  |
| must be approved by the Dean. |  |

## GRADUATION PROCEDURES

1. During the first year in the program, undergraduate and graduate students develop and sign, with their faculty advisor and Dean, advance standing forms and programs of study. This program of study becomes the basic contract between the School and the student, and is used in determining when a student is eligible for a degree. The Dean's Office should receive copies of all programs of study after all signatures have been obtained.
2. Approximately five months prior to the expected graduation date, the student files an application for graduation with the Office of Registration and Records.
3. The Dean's Office, having received this application from the Office of Registration and Records, had the appropriate faculty advisor review the student's record in order to determine that he has fulfilled, or is in the process of fulfilling, the courses required for graduation as listed in his program of study.
4. If the student's progress is deemed acceptable, the faculty advisor, Department Chairperson, and Dean certify the application for graduation, contingent upon completion of the course work which the student is registered for in his final quarter.

## UNDERGRADUATE MAJORS

Major programs leading to the bachelor's degree are offered in Accounting, Finance, Insurance, International Business, Management, Marketing, Public Administration (BPA), Personnel Management, Real Estate and Regional Development, Transportation Management, and Management Information Systems.

# UNDERGRADUATE PUBLIC ADMINISTRATION PROGRAM REQUIREMENTS 

## J. Arthur Heise, Assistant Professor and Chairperson

G. Ronald Gilbert, Associate Professor
K. William Leffland, Professor and Dean, International Affairs Center

Myung S. Park, Associate Professor
Thomas Patka, Assistant Professor
Ann-Marie Rizzo, Assistant Professor
Henry B. Thomas, Assistant Professor
PAD 3702 Administrative Statistics and Data Systems 5
PAD 3413 Organizational Group Processes ..... 5
PAD 3034 Public Policy and Its Administration ..... 5
PAD 3033 Administrators and the Legislative Process ..... 5
PAD 3834 International Comparative Administration ..... 5
PAD 4024 Concepts and Issues in Public Administration ..... 5
PAD 4103 Politics of Administrative Organizations ..... 5
PAD 4414 Public Personnel Administration ..... 5
PAD 4104 Organization and Administrative Theory ..... 5
PAD 4804 Government and Administration of Metropolitan Areas ..... 5
PAD 4432 Administrative Leadership and Behavior ..... 5
PAD 4223 Budgets and the Administrative Process ..... 5
Electives:
PAD 3204Financing Public Organizations30
PAD 3430 Personal Growth and Administrative Development5
PAD 4110 Administrative Interaction in the Public Sector ..... 5
PAD 4603 Administrative Law ..... 5
PAD 4032 Public Choice ..... 5
PAD 4415 Administration of Personnel Resources ..... 5
PAD 4040 Public Values, Ethics and Morality in Changing Environment ..... 5
Other Electives:List of recommended elective courses from other departmentsof the University is available from the SBOS counselors.

## UNDERGRADUATE BUSINESS PROGRAM REQUIREMENTS

## LOWER DIVISION PREPARATION:

The following course requirements, in addition to the other requirements for the Associate of Arts degree, should be a part of the 90 quarter hours ( 60 semester hours) of lower division coursework completed in order to enter these upper division majors.

Required Courses: 6 semester hours of accounting; 6 semester hours of economics; 3 semester hours of college algebra; 3 semester hours of statistics; 3 semester hours of computer programming. If completed at Florida International University, this coursework will normally be taken in addition to the 90 quarter hours of required upper division work.

Computer Programming Proficiency Requirement: The rapidly increasing need of the professional administrator for exposure to computer technology and terminology is the rationale for the computer programming proficiency requirement of the School. The growth and reliance on data processing techniques by business and government demand that fundamental experience in this area be achieved. Therefore, prior to enrollment in CIS 3000 (or ACC 4731), each student must demonstrate computer programming proficiency. This requirement may be completed in any of the following ways:

- Successful completion of a computer programming course at the lower division.
- Successful completion of COP 3172 - Basic Programming for Business.
- Self-study, or work experience. An examination is offered on a regular basis for students selecting this alternative.
Further details may be obtained from the Advisement Office of the School.


## PROFESSIONAL ACCOUNTING MAJORS

Kenneth S. Most, Professor and Interim Chairperson
Richard B. Byars, Assistant Professor
Lucia S. Chang, Associate Professor
Manuel Dieguez, Instructor
Donald W. Fair, Instructor and Assistant Dean
Irving Fantl, Professor

Rosalie C. Hallbauer,Associate Professor
Harvey S. Hendrickson, Professor
Steven B. Jarett, Instructor
David Lavin, Assistant Professor
Myron S. Lubell, Assistant Professor
Leandro S. Nunez, Instructor
Leonardo Rodriguez, Assistant Professor
Lois Slutsky, Instructor

The bachelor's degree program in accounting consists of three parts: the core (40 quarter hours), concentration in accounting ( 35 quarter-hours), and electives ( 15 quarter-hours, which must be selected from among the courses listed below or be approved by the Chairperson of the Accounting Department).
Courses for an emphasis in Managerial Accounting are:
Required Courses: ACC 4102, ACC 4122, ACC 4201, ACC 4301, ACC 4501, ACC 4731, ACC 4348.
Elective Courses: ACC 4601, ACC 4648, ACC 4548, ACC 4522, MAN 4722, ACC 3949, ACC 4949, ECO 3101, ECO 4623, ECO 4134, ENC 3453, ENC 3353, (FIN 4000 LEVEL ELECTIVE), BUL 4100, BUL 4661, MAN 5830, MAN 5831, MAN 5832, COP 3120, QMB 4680, MAN 4820, MAN 4523.
Courses for an emphasis in Financial and Public Accounting are:
Required Courses: ACC 4102, ACC 4122, ACC 4201, ACC 4301, ACC 4501, ACC 4601, ACC 4731.
Elective Courses: ACC 4648, ACC 4548, ACC 4522, ACC 4803, ACC 4271, ACC 4248, ACC 4348, MAN 4722, ACC 5111, ACC 5865, ACC 5211, ACC 3949, ACC 4949, ECO 3101, ECO 4623, ECO 4134, ENG 3453, ENG 3353, FIN ( 4000 LEVEL ELECTIVE), BUL 4661, COP 3120.

UPPER DIVISION PROGRAM:

*NOTE: STA 3132, ECO 3003 and ACC 3300 will be waived if the student received an A, B, or C in the approriate lower division courses. Please see a counselor to determine whether these courses should or should not be added to your academic program. If a student has successfully completed comparable courses at the lower level, upper division credit will not be given for STA 3132, ECO 3003 and ACC 3300.
Core Courses Required for Business Administration Students:
FIN 3403 Financial Management 5
MAN 3503 Managerial Decision Making 5
MAR 3023 Marketing Management 5
QMB 3150 Applications of Quantitative Methods in Business 5
**CIS 3000 Introduction to Information Systems 5
**ACC 3303 Accounting for Planning and Control 5
MAN 3010 Organization and Management 5
MAN 3712 Business and Society
or
MAN 3602 Business in the International Environment 5
ECO 3202 Applied Macroeconomics 5

| MAN 4630 | International Business Policy (international <br> business majors) |
| :---: | :--- |
| or | Policy Analysis |

**These courses should not be taken by students majoring in accounting. See page 197 for
accounting core courses and programs.

Major: Required Courses 25
Approved Electives 15
TOTAL (does not include deficiencies)
90
Note: All electives must be approved in advance by the Dean or his designee.

## PREREQUISITES FOR BUSINESS CORE COURSES

ACC 3300 ACCOUNTING FOR DECISIONS-This course will be waived if student received a "C" grade or better in a Principles of Accounting sequence (This would be ACC 1001 \& 1021, or ACC 1009, 1029 at Miami-Dade).
ECO 3003 PRINCIPLES OF ECONOMICS-This course will be waived if student received a "C" grade or better in Principles of Economics sequence (ECO 2013 \& ECO 2023 at MiamiDade).
STA 3132 QUANTITATIVE METHODS FOR ADMINISTRATION I-This course will be waived if student received a "C" grade or better in a comparable level statistics course (STA 2014 at Miami-Dade).
FIN 3403 FINANCIAL MANAGEMENT-ACC 3300 or its equivalent (see above for ACC 3300).

MAN 3503 MANAGERIAL DECISION MAKING-College algebra, statistics, and QMB 3150 or its equivalent.
MAR 3023 MARKETING MANAGEMENT-None.
QMB 3150 APPLICATION OF QUANTITATIVE METHODS IN BUSINESS—STA 3132, or its equivalent (See above for STA 3132) and college algebra.
CIS 3000 MANAGEMENT INFORMATION SYSTEMS-MAN 3010, ACC 3303, and computer programming proficiency requirement (COC 1300 at Miami-Dade, COP 3172 at FIU).
ACC 3303 ACCOUNTING FOR PLANNING AND CONTROL-ACC 3300 or its equivalent (see above for ACC 3300).
MAN 3010 ORGANIZATION AND MANAGEMENT-None.
MAN 3712 BUSINESS AND SOCIETY-ECO 3003 or its equivalent (see above for ECO 3003).

MAN 3602 BUSINESS IN AN INTERNATIONAL ENVIRONMENT-ECO 3432
ECO 3432 APPLIED MACROECONOMICS-ECO 3003 or its equivalent (see above for ECO 3003).

MAN 4630 INTERNATIONAL BUSINESS POLICY-Open only to international business majors in lieu of MAN 4722. Course should be taken in student's last academic quarter before graduation.
MAN 4722 BUSINESS POLICY-Completion of all core course requirements. Course should be taken in student's last academic quarter before graduation.

## FLORIDA CPA REQUIREMENT

Completion of a Bachelor of Business Administration with emphasis in accounting is accepled by the Florida State Board of Accountancy as fulfilling requirements to sit for the Certified Public Accounting Examination.

The law relating to the practice of public accounting (Chapter 473, Florida Statutes 1969) provides in Rule 21A-9.02-Major in Accounting that:

For purposes of Section 473.08(4)(b), F.S., a major in accounting is defined as an educational program at accredited colleges or universities which includes at least 18 semester hours or 27 quarter hours, or the equivalent, in accounting education above the
elementary level and 27 semester hours or 40 quarter hours, or the equivalent, in general business education. For this purpose, accounting hours above the minimum requirement may be substituted for general business hours.

## ACADEMIC STANDARDS-ACCOUNTING

The upper-division undergraduate accounting program is designed to introduce the student to that common body ol knowledge of business and accounting needed for the development and growth of the prolessional accountant in public accounting, industry, education, and government. The student is urged to acquire a broad, general education in the arts, the humanities and the sciences at the lower-division level for his or her own personal development and growth.

Accounting is a profession with high entrance and retention standards. Since this program is designed to help prepare students lor careers in the accounting profession, its grading, retention, and graduation standards also must be high. The student who earns a "D" or less in one or more of the first three courses taken (ACC 4102, ACC 4122, and ACC 4301) may not continue taking courses in the accounting program without written permission of the Chairperson of the Accounting Department. In addition, to qualify for the Bachelor of Business Administration degree with a major in accounting, the student must have a " C " average or better in all accounting courses attempted.

## MODEL SCHEDULE-PUBLIC ACCOUNTING MAJOR

The following is a model schedule (with several options) that must be followed by the typical full-time student who (1) has completed all of the freshman-sophomore requirements, and (2) wishes to complete the undergraduate accounting program with emphasis in public accounting. Deviations from this schedule must be approved by the Chairperson of the Accounting Department. (The student possessing a non-business baccalaureate degree should consult a School of Business and Organizational Sciences academic counselor for alternative programs that meet the Florida State Board of Accountancy requirements.)

Quarter 1
FIN 3403
QMB 3150
MAN 3712

## Note: Pre-core deficiencies must be completed in Quarter 1.

Quarter 2
ACC 4102
MAN 3503
ECO 3432
Quarter 3
Elective:
ECO 3101, ECO 4623, ECO 4134, ENC 3353, a 4000 level finance course or BUL 4661, COP 3120.

Quarter 5
ACC 4601
ACC 4201
Elective: ACC 4648, ACC 4548, ACC 4522, ACC 4248, ACC 4348, a 4000 level finance course, COP 3120.

Quarter 6
MAN 4722
ACC 4731
Elective: BUL 4661, ACC 4648, ACC 4548 , ACC 4522, ACC 4248, or ACC 4348.

ACC 4122
MAR 3023
MAN 3010
Quarter 4
ACC 4301
ACC 4501

## FINANCE MAJOR

Gerald W. Perritt, Associate Professor and Chairperson
Richard Biscomb, Associate Professor and Associate Vice President and Director, Office of Development
Francis Deastlov, Assistant Professor
Campus Location: Tamiami and North Miami Campuses
Degree: Bachelor of Business Administration

Constantine Kalogeras, Associate Professor Arun Prakash, Assistant Professor
Emmanuel Roussakis, Associate Professor
Samuel Schulz, Adjunct Instructor
William Welch, Assistant Professor

The Finance program leading to the BBA degree is designed to give the undergraduate student managerial finance skills in the functional areas of banking, corporate finance, investments, and international finance. The program consists of (1) 50 quarter hours of general business core courses, (2) 10 quarter hours of finance core courses (FIN 4404 and FIN 4303), (3) a minimum of 15 quarter hours of finance specialization courses selected from the above mentioned functional areas, and (4) 15 quarter hours of elective courses. Students are urged to select economics, real estate, insurance, accounting, or additional finance courses as electives. The prerequisite for 4000 and 5000 level finance courses is FIN 3403.

## Finance Program Core Courses

$$
\text { FIN } 3403 \quad \text { Corporation Finance (included in the } 50
$$

FIN $4404 \quad$ Corporate Financial Policy 5
FIN 4303 Financial Markets and Institutions 5
Functional Areas of Specialization
Banking: (Students are urged to select at least three of the following courses)
FIN $4313 \quad$ Financial History of the United States 5

FIN 4324 Commercial Bank Management 5
FIN $4344 \quad$ Credit Analysis and Loan Evaluation 5
FIN 5223 Financial Management of Savings and Loans 5
Investments:
FIN 4502 Security Analysis 5
FIN 4504 Portiolio Analysis and Management 5
FIN $5515 \quad$ Futures Trading 5
Corporate Finance: Students are urged to select at least three of the following courses:
FIN $4419 \quad$ Capital Budgeting Techniques and Applications 5
FIN $4610 \quad$ International Financial Management 5
FIN 5314 Working Capital Management 5
FIN 5473 Small Business Finance 5
International Finance: (to be offered beginning 1978-79 academic year).

## INSURANCE MAJOR

An insurance major is offered through the Department of Marketing and Environment. An insurance major is required to take 25 quarter hours of insurance courses at the 4000 level. For most students majoring in insurance the following five courses are recommended:

RMI $4015 \quad$ Principles of Insurance
RMI 4212 Property Insurance I
RMI 4213 Property Insurance II
RMI $4220 \quad$ Casualty Insurance I
RMI 4221 Casualty Insurance II
These five insurance courses have been approved by the State of Florida Insurance Commissioner's office to fulfill the educational requirements for taking the $2-20$ license examination.

A student may, however, after consultation with his or her major advisor, choose to take other courses such as RMi 4115-Life Insurance, RMI 4016-Management of insurance Enterprise, or other insurance offerings. Students may also be eligible for the Certificate of Professional Insurance Accomplishment (for which see page 215).

## INTERNATIONAL BUSINESS MAJOR

Duane Kujawa, Professor and Program Coordinator
Francis Deastlov, Assistant Professor
Irving Fantl, Professor
Robert Grosse, Assistant Professor
Jan B. Luytjes, Professor
Kenneth S. Most, Professor

Emmanuel Roussakis, Associate Professor F. Bruce Seaton, Associate Professor

George B. Simmons, Professor and Dean
George Sutija, Associate Professor and Associate Dean
Ronald H. Vogel, Associate Professor

An International Business (IB) major is offered through the Department of Finance and International Business. The IB major must take MAN 3602-Business in an International Environment in the business core. All IB majors are required to declare a functional major (such as Finance, Management, or Marketing), and to satisty the requirements of that major. In so doing, however, the international course in the functional major must be taken (such as FIN 4605-Financial Management in the Multinational Corporation or MAR 4243-International Marketing). In addition, the elective courses (three minimum) provided for in the functional majors must be selected from the following (exclusive of the international course in the declared functional major), with the concurrence of the International Business program coordinator:

ACC 4271
FIN 4610 International Accounting
MAN 4600
MAN 4610
MAR 4243
MAR 4244
PAD 3834
ECS 3003
ECO 4701
ECO 4733

> International Accounting International Financial Management International Management International and Comparative Industrial Relations International Marketing Export Marketing International Comparative Administration Comparative Economic Systems
> World Economy Multinational Corporation

The capstone course, MAN 4630-International Business Policy, is required of all IB majors in lieu of MAN 4722-Policy Analysis. It should be taken in the final quarter prior to graduation. The IB major is offered only as a second major, but ordinarily would not involve additional course work beyond that required in the single major programs. Accordingly, students selecting the IB option will graduate as dual majors in the functional field of their choice and International Business.

## (For Accounting Majors)

The Accounting-International Business dual major is essentially that described above, but with slight modification. Business in an International Environment, and MAN 4630-International Business Policy, are required. In addition to the seven senior level courses required of Accounting majors, the Accounting-IB dual major must take ACC 4271-International Accounting as an elective. He must also select two electives from the list of electives noted above. FIN 4610-International Financial Management is highly recommended as one of these. The dual major is designed so that a student may normally complete it within the total 90 credit hour degree requirement of the University.

## MANAGEMENT MAJOR

Karl O. Magnusen, Associate Professor and Acting Chairperson
Steve Altman, Associate Professor and Assistant Vice President, Academic Affairs
Elias M. Awad, Professor
Wayne F. Cascio, Associate Professor
Gary Dessler, Associate Professor and Associate Dean
Herman W. Dorsett, Associate Professor
Dana Farrow, Assistant Professor
Earnest Friday, Instructor
Richard M. Hodgetts, Professor
William T. Jerome, III, Distinguished University Professor
Dieter Klein, Assistant Professor

Herbert J. Lerner, Professor
Joan Mills, Assistant Professor
Frederick F. Newpeck, Associate Professor
Alan J. Parker, Associate Professor
Daniel Robey, Associate Professor
Leonardo Rodriguez, Associate Professor
Gloria Shapiro, Instructor
Valdur Silbey, Assistant Professor
George B. Simmons, Professor and Dean
Larry Smith, Associate Professor
William M. Taggart, Associate Professor
Efraim Turban, Professor and Coordinator, Health Care Management
Enzo R. Valenzi, Associate Professor

The Department of Management offers degree programs of study at the bachelor's level in Organizational Theory, Personnel Management, Behavioral Science, Management Science, Management Information Systems, and Health Care Management. (The undergraduate
program in Health Management is jointly offered by the School of Health and Social Services. For admission requirements, consult the Department of Health Sciences, School of Health and Social Services.) The student is given wide latitude either to specialize in one particular area, or to select from courses on a more general level of professional education. The Management major requires 20 quarter hours of management courses at the 4000 or 5000 level. MAN 4521 (Operations Planning and Control) is required for all students within the 20 hours requirement with the exception of those selecting the Personnel Management track.

Alternative suggestions for course selections in various tracks follow the suggested general program of study below.

## Quarter 1

QMB 3150
ACC 3303
MAN 3010
Quarter 2
FIN 3403
MAN 3503
MAR 3023
Quarter 3
CIS 3000
MAN 3712
MAN 4521
-Elective courses may be taken in any academic area. (Recommended departments outside SBOS are Economics, Mathematical Sciences, and Psychology.)

Quarter 4
ECO 3432
One course with MAN prefix
One elective course*
Quarter 5
Two courses with MAN prefix
One elective*
Quarter 6
MAN 4722
Two electives*

Alternative courses for Management students in specific subject areas:

1. Personnel Management (Select 4 of 5) MAN 4401 Industrial Relations
MAN 4410 Labor, Management and Collective Bargaining
MAN 4301 Personnel Management
MAN 4320 Personnel Recruitment and Selection
MAN 4330 Wage and Salary Administration
2. Management Information Systems QMB 4680 Simulation of Management Systems
MAN 4820 Information Systems
Development
MAN 4523 Production Information Systems
MAN 4521 Operations Planning and Control
3. Organizational Behavior

MAN 4521 Operations Planning and Control
MAN 4201 Organization Theory
MAN 4151 Behavioral Sciences in Management
MAN 4120 Intergroup Relations in Organizations
4. General Management

MAN 4521 Operations Planning and Control
MAN 4600 International Management
MAN 4201 Organization Theory
MAN 4771 Small Business Management
5. Flexible Option

MAN 4521 Operations Planning and Control
Any three (3) other MAN courses

MARKETING MAJOR

John A.F. Nicholls, Associate Professor and Chairperson
Alf L. Erickson, Assistant Professor
Anne Fiedier, Instructor
Robert H. Hogner, Assistant Professor
Jan B. Luytjes, Professor
Linda B. Magee, Instructor

Sydney Roslow, Associate Professor Willard M. Salzer, Associate Professor
F. Bruce Seaton, Associate Professor

Robert J. Thomas, Assistant Professor
Ronald H. Vogel, Associate Professor
Doria B. Yeaman, Lecturer

The bachelor's degree program in marketing necessitates 25 quarter hours of marketing courses at the senior (4000) level. Of these quarter hours, 15 hours consist of the following required courses:

| MAR 4503 | Consumer Behavior |
| :--- | :--- |
| MAR 4613 | Marketing Research |
| MAR 4713 | Cases in Marketing Management |

The remaining 10 credit hours may be selected by the student with his or her advisor from other marketing course offerings. It is suggested that students concentrate in a specific area and take, for example:

1. Advertising Concentration

MAR 4303 Advertising Management
MAR 4344 Advertising Campaign
Management
2. Retailing Concentration

MAR 4153 Retailing Management
MAR 4154 Cases in Retailing
Management
3. International Concentration

MAR 4243 International Marketing
MAR 4244 Export Marketing
4. Distribution-Concentration

MAR 4203 Marketing Channels
MAR 4213 Transportation Logistics
Marketing majors, however, are not limited to the above concentrations and may choose courses from any other marketing offerings or any mix of courses.

## REAL ESTATE MAJOR

William R. Beaton, Professor<br>Vance R. Johnson, Assistant Professor

A real estate major at the bachelor's degree level is offered through the Department of Marketing and Environment within the School of Business and Organizational Sciences. The real estate major is expected to take 25 quarter hours within the real estate course offerings or, with the consent of his or her advisor, in an allied field. Under normal circumstances a real estate major without previous formal undergraduate work in the area will be expected to take the two introductory courses (REE 4040-Introduction to Real Estate, and REE 4430-Legal Environment of Real Estate), as well as three other 5 quarter hour courses chosen with the consent of his or her major advisor.

## TRANSPORTATION MANAGEMENT MAJOR

A bachelor's degree program with a major in Transportation Management is offered through the Department of Marketing, Environment, and International Business. The student who wishes to major in Transportation Management is required to take 25 quarter hours of transportation management courses at the senior (4000) level. The student is required to take TRA 4240-Transportation Systems and Services for 5 quarter hours of major field credit. Besides this course, the student is encouraged to take other courses in transportation management (such as TRA 4012-Principles of Transportation Logistics; TRA 4101 -Transportation Rate Making; TRA 4203—Physical Distribution Management; and TRA

4510-Mass Transportation and Urban Problems), or three courses in a field such as air transportation (as TRA 4410-Air Transportation; TRA 4411-Airport Management; and TRA 4412-Air Carrier Management).

## GRADUATE STUDY: General Information

The Graduate Programs of the School of Business and Organizational Sciences offer the student advanced professional education for managerial careers in business and government. At the graduate level, the degrees of Master of Business Administration, Master of International Business, Master of Public Administration, and Master of Science in Management, for example, in Accounting, Finance, Health Care, and Real Estate are offered. Certificate programs in Emergency Medical Services (EMS); Systems Administration; Insurance, Management Information Systems; Personnel Administration; Real Estate; and Transportation Management are also offered.

Generally, graduate programs in the School of Business and Organizational Sciences are aimed at accomplishing two objectives. The first objective is to provide the student with a sound foundation in a variety of management functions, such as marketing, production, accounting, finance, quantitative methods, decision-making, and behavioral science. Based upon this foundation, the second objective of the programs in the School is to provide students with a specialization and expertise in a particular area of management, so as to facilitate the student's performance on his or her entry or second level job.

## ADMISSION REQUIREMENTS

To be eligible for admission to the graduate programs in the School of Business and Organizational Sciences at Florida International, the applicant must:

1. Satisfactorily meet the general University requirements for admission to graduate programs.
2. Hold a bachelor's degree from a regionally accredited college or university.
3. Meet the minimum standards regarding entrance examination scores and upperdivision grades as determined by the faculty:
a) Admission to the Master of Business Administration (MBA) and the Master of Science in Management-Accounting, Finance, and Real Estate programs will be based upon a combination of the score on the Graduate Management Admissions Test (GMAT) and the upper division grade-point average (GPA). Specifically, the applicant must have a combined score of at least 1000 points, computed as follows:
$($ GPA $\times 200)+($ GMAT score $)=1000$, with a minimum 450 on the GMAT.
b) Admission to the Master of Public Administration program will be based upon either a 3.0 or better upper division grade point average or a score of 1500 or higher on the Graduate Record Examination (GRE), if taken since October 1977. (Prior to this test administration, a score of 1000 was the minimum requirement.)
c) Applicants for admission to the Master of Science in Management-Health Care Management program should have a " B " or better upper division grade point average and a score of 1000 or higher on the Graduate Record Exam (GRE). Applicants whose records fall below these standards may be considered for admission to the program at the discretion of the Program Director.
d) Admission to the Master of International Business program will be based upon either an upper division grade point average of 3.0 or higher or a score of 450 or better on the Graduate Management Admissions Test (GMAT).
4. Present, if a foreign student, a minimum score of 500 on the TOEFL, or equivalent on a comparable examination. (See General Admission Requirements for Foreign Students (undergraduales and graduates) in the Admission section of the catalog.)
5. Be in good standing with previous colleges or universities attended.

## APPLICATION PROCEDURES FOR THE MASTER OF BUSINESS ADMINISTRATION, MASTER OF INTERNATIONAL BUSINESS, MASTER OF PUBLIC ADMINISTRATION, AND MASTER OF SCIENCE IN MANAGEMENT PROGRAMS

A student planning to enroll in graduate studies in the School must complete the following steps and meet the stipulated requirements:

1. Submit a graduate application for admission to the Admissions Office of Florida International. Application forms will be mailed upon request. The admission process may require as much as two months after receipt of the application, depending upon the time involved in the receipt of transcripts and test scores.
2. Have 2 copies of the official transcripts of all previously earned college or university credits sent from the applicant's former institution(s) to the Admissions Office of Florida International and the School of Business Counseling Office. (Copies submitted directly by applicants are not accepted for application purposes.)
3. (a) The candidate applying to the MBA, MIB, or MSM Accounting, Finance, International Business and Real Estate programs must submit his or her scores on the Graduate Management Admissions Test (GMAT), administered nationally by the Educational Testing Service (Box 966, Princeton, New Jersey 08540). Registration forms will be mailed upon request.
(b) The candidate applying to the MPA or MSM Health Care Management programs must submit his or her scores on the Graduate Record Exam (GRE), administered nationally by the Educational Testing Service (Box 955, Princeton, New Jersey 08540). Registration forms will be mailed upon request.

## DEGREE REQUIREMENTS

To be eligible for a Master's degree, a student must:

1. Satisfy all University requirements for a master's degree.
2. Meet the requirements of an approved Program of Study.*
3. (a) Complete a minimum of 45 quarter hours (depending on program) of graduate level coursework, for the Master of Science in Management programs.
(b) Complete a minimum 60 quarter hours of graduate levei coursework, for the Master of Business Administration, Master of International Business, or Master of Public Administration programs.
4. Earn a minimum average of " B " (3.0) or the equivalent in all work completed at FIU as a graduate student.
*The student's Program of Study is developed by the student and his faculty advisor and must be approved by the Division Chairperson and the Dean of the School of Business and Organizational Sciences.

## GRADUATION PROCEDURES

See the procedures described on page 195.

## GRADES AND CREDITS

No courses in which a grade below "C" is earned may be counted toward the MBA, MIB, MPA, or MSM degrees. However, all work taken as a graduate student will be counted in computing the quality point average, including courses graded " D " or " $F$ ", and any undergraduate courses taken while a graduate student.

## TRANSFER CREDIT

The student may receive permission to transfer up to a maximum of 10 quarter hours of graduate credit to his or her degree program, provided that: (1) the course(s) were taken at the graduate level at an accredited college or university; (2) the course(s) were not introductory or "survey" in nature; (3) grade(s) of " B " or better were earned; (4) the course(s) are judged by
the faculty advisor, Division Chairperson, and Dean to be relevant to the student's graduate program; and (5) the credit(s) were not used toward another degree. Credit is not transferable until the student has earned 25 quarter hours in his School of Business and Organizational Sciences graduate program. Students wishing to transfer to the School of Business and Organizational Sciences must be in good standing at their previous school or college.

## MAXIMUM RECOMMENDED COURSE LOADS

Full time students
10 quarter hours
Students working full or part-time 5 quarter hours
Approval for exceptions must be obtained from the Dean or his designee.

## SPECIAL STUDENT REGISTRATION

Only fully admitted graduate students may register for MBA courses with the exception of ACC 6011 and QMB 6603. The special student should be counseled by the appropriate faculty advisor before registering for any courses.

## 5000-LEVEL COURSES

5000-level courses are open to graduate students and seniors. Master of Public Administration and Master of Science in Management students may take a maximum of three 5000 -level courses. All other courses in the student's program must be at the 6000 -level (courses which are only open to graduate students). Master of Business Administration students will normally take all work at the 6000 level.

## TIME LIMIT

All work applicable to the master's degree must be completed within six years immediately preceding the awarding of the degree, and within five years of the student's first admission to graduate study in the School of Business and Organizational Sciences.

## CHANGE OF MAJOR

The graduate student who wishes to change his or her program major must submit a graduate change of major request to the Admissions Office of Florida International, and meet the admission and program requirements in effect at the time of the change of major.

## ACADEMIC WARNING, PROBATION, AND DISMISSAL

WARNING: A student whose cumulative GPA falls below a 3.0 will be placed on WARNING indicating academic difficulty.
PROBATION: A student on WARNING whose cumulative GPA falls below 3.0 will be placed on PROBATION indicating serious academic difficulty. The College/School of the student on PROBATION will appropriately communicate conditions which must be met in order to continue to enroll in the program.
DISMISSAL: A student on PROBATION whose cumulative and quarterly GPA falls below 3.0 will be automatically dismissed from his/her program and the University.

## MASTER OF BUSINESS ADMINISTRATION (MBA)

The objective of the Master of Business Administration (MBA) program is to provide the student with a general background in the concepts and processes of administration. The MBA program at Florida International is aimed at developing a management generalist who has a breadth of knowledge and understanding, and who is oriented toward pragmatic problem solving. Limited specialized training is available for the student who has the necessary background.

The courses leading to the MBA degree are designed to provide a breadth of experience in the tools and concepts of business administration. The total MBA program is fixed at 60 quarter hours of the MBA courses. The courses are categorized by area, with a regular MBA course and substitute(s) for each category. If a student tests-out or is counseled out of the


#### Abstract

"regular" course(s), he or she must select one of the substitutes in the same category. To be eligible for testing or counseling out of a "regular" course, the student should have previously completed at least three to four courses in that functional area at the upper division level with above-satisfactory grades. Electives may be taken from any of the 6000 level offerings in Business Administration. Students without accounting or statistical background will substitute ACC 6011 (Managerial/Financial Accounting) and QMB 6603 (Quantitative Methods in Management) for their electives.


MBA Program

| Area | Regular Course | Possible <br> Substitute Courses' |
| :---: | :---: | :---: |
| Economics* <br> (Micro/Macro) | ECP 6704 Managerial Economics | An elective in either Marketing or Finance. This substitute is only available to an economics major. |
| Information Systems | MAN 6830 Organization Information Systems | MAN 6833 Information Systems Planning |
| Quantitative Methods* | MAN 6721 Managerial DecisionMaking | MAN 6836 Systems Analysis |
| Accounting** | ACC 6313 Accounting For DecisionMaking | ACC 6411 Managerial Accounting ACC 6391 Seminar in Managerial Accounting I <br> ACC 6291 Seminar in Financial Accounting Theory ACC 6651 Studies in Accounting ACC 6512 Income Tax Planning and Research |
| Finance (Corporate) | FIN 6428 Financial Management | FIN 6636 International Finance FIN 6246 Financial Markets FIN 6806 Financial Theory |
| Operations Marketing | MAN 6501 Operations Management MAR 6716 Marketing Management | MAN 6836 Systems Analysis MAR 6246 Advanced International Marketing |
| Management | MAN 6205 Organizational Analysis | MAN 6112 Group Processes MAN 6405 Labor Relations MAN 6601 International Management |
| Environment | MAN 6713 World Dynamics and the Organization | BUL 6124 Business Law MAN 6725 International Business Environment |
| Policy Electives | MAN 6721 Policy Analysis Two 6000 level business administration courses ( 10 quarter hours), depending upon the waiver of ACC 6011 and QMB 6603 | (No substitutes) |

${ }^{1}$ See the guidelines under program description above.
*For the student without STA 3132 and QMB 3150 (college algebra and statistics) background, QMB 6603 will replace one elective, to be taken prior to ECP 6704 and MAN 6721.
**For the student without ACC 3300 and ACC 3303 (financial and managerial accounting) background, ACC 6011 will replace one elective, to be taken prior to ACC 6313 and FIN 6428. NOTE: The first four categories - economics, information systems, quantitative methods, and accounting - must be satisfied prior to taking any other MBA courses. The policy course has to be scheduled for the last quarter of MBA study. Two electives are allowable within the program, except as noted.

## MASTER OF INTERNATIONAL BUSINESS

The Master of International Business program is a 60 quarter hour program designed to acquaint students with the international environment and provide basic management tools and solid preparation in one area of specialization. The first block of five core courses will give the student a conceptual framework of international business, economic development and comparative politics. These courses will deal with international corporations, international development and international cooperation. The second block of four courses will give the student a general background in accounting, finance, management and marketing. Each student will then specialize in one of the major areas (accounting, finance, management, or marketing), taking three additional courses in his/her chosen field. All students will be required to demonstrate competence in quantitative methods, or will be required to take the course QMB
6603. Each candidate will also be required to demonstrate basic reading and/or speaking competence in one major world commercial language.

PROGRAM OF STUDY


## MASTER OF PUBLIC ADMINISTRATION (MPA)

The Master of Public Administration program is a 60 quarter hour program composed of five required courses ( 25 quarter hours) dealing with public administration: political, social and economic environment; management theories and organizational behavior; financial processes; research methodology and policy. An additional 7 courses ( 35 quarter hours) which the student is required to take are offered in six different modules: Values and Administration; Organizational Behavior; Quantitative; Administrative Problems; Local Government; and International Public Administration. The student must take at least one course from each of five different modules.

Students engaged in an internship program are allowed to take only 3 courses from different modules, 2 additional electives within the program and 2 faculty supervised independent studies related to their internship work and cumulating in written research papers.

Students may also specialize in different fields of public administration, such as public health or criminal justice. In such cases, they will take only three courses from different modules, and four elective courses - which may include independent studies - from other departments outside the program. However, courses taken outside the Public Administration program must be approved prior to registration.

All students will be required to demonstrate competence in quantitative methods and in
public personnel administration, or to enroll in the courses designed to provide these skills: PAD 6701 and PAD 6417.

NOTE: Individuals taking courses as special students are reminded that only up to fifteen quarter hours can be transferred toward their degree after they have been admitted to the program.

PROGRAM OF STUDY

| Required Courses | Quarter Hours |
| :--- | :--- | :--- |
| PAD 6053 |  |
| Political, Social and Economic Context of |  |
| Public Administration |  |$\quad 25$

25
Political, Social and Economic Context of Public Administration 5
Organizational Theory and Administrative Public Finance and the Budgetary Process 5 Research Methods in Complex Public
Organizations
Public Policy

1. Values and Administration

PAD 5041 Values and Technology in Modern Society 5
PAD 6035 Public Interest and the Public Trust 5
PAD 6042 Democracy and the Administrative State 5
Administrative Law and Procedures
PAD 5427 Collective Bargaining in the Public Sector 5
PAD 6417 Public Personnel Administration 5
PAD 6437 Dynamics of Individual Growth 5
PAD 6109 Organizational Development and Change 5
PAD 6701 Quantitative Methods and Computer Skills 5
CIS 6204 Management Information Systems 5
PUP 6006 Public Policy Analysis and Evaluation 5
PAD 5435 Administrator and the Role of Women 5
PAD 5443 Public Administrator and Media Relations 5
PAD 6043 Government and Minority Group Relations 5
5. State and Local Governments

PAD 6816 Regional and State Government Administration 5
PAD 6807 Urban and Munioipal Government Administration 5
6. International

PAD 6838 Development Administration 5
PAD 6836 International Public Administration 5

## MASTER OF SCIENCE IN MANAGEMENT (MSM)

The Master of Science in Management program provides an in-depth educational experience for the student desiring greater specialization in a particular area.

Concentrations within the Master of Science in Management program are available in the following areas: Accounting, Finance, Health Care Management, and Real Estate.

The Master of Science in Management program is a one to two year sequence, depending upon the specific program and the applicability of the student's undergraduate course work. The type and number of prerequisite courses varies with the area of concentration. Each student will be counseled concerning his individual needs.

## MSM ACCOUNTING

The MSM program in Accounting is designed primarily for the student with an un-
dergraduate degree in Accounting. The student with a bachelor's degree in another field may be admitted to this program, but will be required to complete preparatory courses in business and accounting.

Due to varied career opportunities, the MSM program in Accounting is divided into four subprograms, and many variations are possible. The Managerial Accounting program is designed for the student who aspires to be an officer in a business corporation, a governmental unit, or a not-for-profit organization. The Public Accounting program is designed for the student who aspires to be a Certified Public Accountant and leader in the public accounting profession. The International Accounting program is designed for the student who aspires to a professional career with an international accounting firm, a multinational corporation, an international public organization, or an institution in a developing country. The Taxation program is designed for the student who aspires to a career as a tax professional in public accounting, law, industry, education, or government.

A student who earns an MSM in Accounting and successfully passes the Certified Public Accountant Examination usually will qualify to receive a certificate as a Certified Public Accountant. An explanation of the relevent Florida Statute follows.

## FLORIDA CPA REQUIREMENT

Completion of a Bachelor of Business Administration with emphasis in accounting is accepted by the Florida State Board of Accountancy as fulfilling requirements to sit for the Certified Public Accountant Examination. (For the law relating to the practice of public accounting in which Major in Accounting is defined see Rule 21A-9.02 on page 198.)

Ordinarily a person passing the CPA Examination must complete one year of employment in the office of a Florida or out-of-state practitioner before receiving a certificate as a Certified Public Accountant. However, the law relating to the practice of public accounting provides in Rule 21A-9.03 that:

An additional one year accounting course, acceptable in lieu of one year of employment, is defined as a minimum of 30 semester hours or 45 quarter hours, or the equivalent, in courses which would qualify for graduate level credit at accredited colleges or universities, which shall include at least 12 semester or 18 quarter hours, or the equivalent, in post-baccalaureate accounting education. For purposes of this rule, courses used to satisfy Rule 21A-9.02 may not be included in the additional one year accounting course.
Each of the four subprograms (or specializations) in the MSM Accounting program has been designed to allow the student to specialize. Thus, the choice of a specialization predetermines most of a student's course requirements. Each student must work with the graduate advisor in designing his (or her) own program of study in compliance with the requirements of the chosen specialization. The following is the outline of a general program of study:

## PROGRAM OF STUDY

Quarter Hours
Required Courses: selected from the courses below; 15 of the required hours must be at the 600 level.

ACC 5111 Standards and Principles of Financial Accounting 5
ACC 5131 Advanced Financial Accounting 5
ACC 5865 Governmental and Institutional Accounting 5
ACC 5734 Accounting Information Systems 5
ACC 5611 Auditing 5
ACC 5511 Accounting for Income Taxes 5
ACC 5211 Accounting Problems ${ }^{1}$ 5
ACC 6735 Seminar in Accounting Information Systems I $1^{12} 5$
ACC 6745 Seminar in Accounting Information Systems $I^{2}$ 5
ACC 6411 Managerial Accounting ${ }^{12}$ 5
ACC 6391 Seminar in Managerial Accounting $1^{12} \quad 5$
ACC $6845 \quad$ Seminar in Managerial Accounting $\|^{2} \quad 5$
ACC 6291 Seminar in Accounting Theory $\mathrm{I}^{12} 5$

| ACC 6932 | Seminar in Accounting Theory II |  |
| :--- | :--- | :--- | :--- |
| ACC 6651 | Studies in Auditing ${ }^{1}$ | 5 |
| ACC 6512 | Income Tax Planning and Research ${ }^{13}$ | 5 |
| ACC 6531 | Taxation of Corporations I |  |

## MSM FINANCE

PURPOSE: The graduate program leading to the degree of Master of Science in Management is offered for students who wish to pursue an advanced education in business and concentrate on a field of specialization. The MSM Program in Finance is designed to develop analytical skills and decision-making abilities in the solution of problems related to raising and using funds. Graduates will be able to demonstrate a suitable competence in handling complex financial and investment situations. Their top management view of firms and corporations will be strengthened to enable them to participate effectively in the other functions of business. Graduates also will have a good institutional knowledge of financial and capital markets, financial instruments, and current developments and opportunities available to investors, financial institutions, and nonfinancial enterprises.

CONTENT AND STRUCTURE: The program consists of sixty quarter hours (twelve courses), divided into three groups as follows:

1. Six general core courses. Some students, depending on their undergraduate education, are eligible to waive these courses. All other participating students are required to take these courses.
A. Three of the core courses are of general background type. They cover the subjects of general management, economics, and quantitative methods.
B. Three of the core courses cover specific functions in business such as accounting, the processing of information, and marketing.
2. Three finance core courses. All MSM finance students are required to take three general finance courses. The courses are designed to give the student a working knowledge of basic financial management, financial theory, and financial models.
3. Three finance specialization courses. Each student will select courses from a number of finance offerings that will be available. A concentration in a particular subject such as corporate finance, investments, and banking is not only possible, but encouraged. Individual faculty counseling is available to provide assistance in designing a program in the field of specialty.

Generally, students with the BBA degree will satisfy the general core course requirements and they may enroll in additional specialization courses. Functional core courses may also be waived with the approval of the faculty counselor. In this case, students are encouraged to substitute for each waived course a graduate course in the same field. The sixty (60) quarter hours may be reduced to forty-five (45) for students who possess a master's degree in an approved field. Thus, the program is sufficiently flexible to provide depth in finance and/or breadth in business and management.

## COURSES

General Core Courses
ECP 6704 Managerial Economics
MAN 6205 Organizational Analysis
QMB 6603 Quantitative Methods in Management
Functional Core Courses
ACC 6011 Financial Accounting Analysis
MAN 6830 Organizational Information Systems
MAR 6716 Marketing Management
Finance Core Course
FIN 6246 Financial Markets and Institutions
FIN 6428 Financial Management
FIN 6806 Financial Theory and Models
Specialization Courses
FIN 5473 Small Business Finance
FIN $5515 \quad$ Futures Trading
FIN 6315 Management of Deposit Institutions (Banking)
FIN 6316 Management of Nondeposit Institutions
FIN $6416 \quad$ Business Financial Structure
FIN 6426 Asset Selection and Management
FIN 6436 Capital Budgeting and Long-term Resource Allocation
FIN $6456 \quad$ Quantitative Methods in Financial Analysis
FIN 6516 Security Analysis
FIN 6525 Portfolio Management
FIN 6636 International Finance
FIN 6716 Financial Management of Governmental Organizations
FIN 6906 Independent Study in Finance
FIN 6915 Master's Project in Finance
FIN 6936 Special Topics in Finance

## MSM HEALTH CARE

This education program is jointly designed and developed by the School of Business and Organizational Sciences and the School of Health and Social Services to meet the expressed current and projected needs of managers in the health care delivery system.

## ADMISSION REQUIREMENTS

Students seeking admission into the graduate program must meet the following minimum requirements:

A Bachelor's degree or equivalent from a regionally accredited university or college.
$A$ " $B$ " or better average in all work attempted while registered as an upper division student
for a baccalaureate degree, and a total score of 1000 on the general GRE (Graduate Record Examination).
NOTE: All graduate applicants to the MSM in Health Care Program, regardless of previous grade-point average, are required to take the GRE.
Meeting the minimum requirements does not guarantee admission to the program. Admission will be based on space availability, work experience and scholastic achievements.

The student must complete 55 credit hours, on a quarter basis, excluding the prerequisites.

Prerequisites (May be taken after admission):
Accounting (HCA 4203) - Must be taken prior to HCA 6201
Statistics (HCA 4711) - Must be taken prior to HCA 6719
Required Courses:
HCA 5505 Personnei Administration in Health Institutions
HCA 6113 Health Care Delivery
HCA 6508 Management in Health Care Institutions
HCA 6201 Financial Management of Health Institutions
HCA 6316 Legal Aspects and Policy in Delivery of Health Care
HCA 6431 Public Health and Medical Care Organization
HCA 6719 Research Methodology and Quantitative Methods
HCA 6850 Health Facility Administration
Electives: Students must take 2 electives ( 10 quarter hours) selected from
the following list.
HCA 5135 Emergency Medical Systems I
HCA 5611 Health Planning
HCA 6101 Health Care Organization
HCA 6136 Emergency Medical Systems II
HCA 6301 Hospital Administration I
HCA 6302 Hospital Administration II
HCA 6392 Special Topics
HCA 6691 Seminar
HCA 6701 Independent Study
HCA 6718 Quantitative Analysis in Health Systems
HCA 6510 Mental Health Administration
Residency or Master's Project (5 quarter hours):
Students will be required to take a residency (HCA 6811) or to write a master's project (HCA 6732).

## MSM REAL ESTATE AND URBAN DEVELOPMENT

A Master of Science in Management with a concentration in Real Estate is available to persons interested in graduate work in Real Estate.

University graduates in Real Estate find employment in: land planning and development; real estate investing and counseling; environmental planning; development of new cities; international real estate; recreational land use development; construction management; corporate real estate divisions; governmental agencies; appraising; marketing of residential, commercial, and industrial properties; property management, such as of large apartment complexes, office buildings, and shopping centers; conventional and creative real estate financing through financial institutions, such as commercial banks, savings and loan associations, life insurance companies, mortgage bankers and mortgage brokers; and teaching, in the rapidly growing field of real estate education. Further, competent real estate talent is being called upon for partitipation in the rapidly growing field of real estate syndication, limited partnerships and joint ventures.

Program Prerequisites: one semester or quarter of financial management; two semesters or quarters of economics; one year of work experience in the real estate industry or an undergraduate major in business administration.

Following a student's admission to the graduate program in Real Estate and Regional Development, each graduate student will develop an individual program of studies agreed to by his faculty advisor.

## CERTIFICATE PROGRAMS: GENERAL INFORMATION

The overall purpose of the certificate programs is to provide practicing managers with advanced training in the techniques and methods pertinent to their areas. The programs are for both degree and non-degree seeking students, and culminate in the awarding of a certificate.

## BANKING

General Description
The CIB (Certificate in Banking) core program consists of four undergraduate/graduate Finance courses representing approximately 200 contact hours between instructors and participants. Participants enrolled in the Certificate program may elect to take each course for a grade or on a credit-only basis. Upon successful completion of the four course sequence, a Certificate signed by the Dean of the School of Business and Organizational Sciences will be awarded.

Participants with the appropriate educational background are expected to complete the Certificate program within a twelve-month period. This could be accomplished by enrolling in one finance course each quarter for four successive quarters. Applicants not possessing the appropriate educational background may fulfill the program prerequisites by successfully completing ACC 3300 and FIN 3403.

## Program Goals

1. To acquaint the participant with the investment, financing, and other policy decisions within the scope of the corporate finance officer's authority structure.
2. To acquaint the participant with the functioning of the American capital markets and the institutions which service these markets.
3. To survey commercial bank management techniques and methods of operation. Emphasis is placed on the goals of the commercial bank and the methods of obtaining these goals.
4. To develop in the participant the ability to systematize the business loan evaluation process in order to make sound rational credit-loan decisions.

## Course Requirements

1. Basic requirements. Students with an undergraduate degree in business administration or those which have satisfied the following requirements may have these courses waived.

## ACC 3300 Accounting for Decisions

FIN $3403 \quad$ Financial Management
2. Specific program requirements for the Certificate in Banking program.

FIN 5404 - Policies for financial management - The process of securing and allocating funds within the business organization, with emphasis on the relevant financial decision-making and policy aspects.
FIN 5303 - Financial intermediaries and markets - The role of financial institutions; the sources and uses of funds of financial intermediaries; the objectives and constraints of these intermediaries; and the supply and demand for loanable funds in different financial markets.
FIN 5324 - Commercial bank management - The management of bank assets and liabilities; specialized banking functions; and the role of the commercial bank in financing business.
FIN 5344 - Credit analysis and loan evaluation - Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; international transactions; and leasing.

The initial program will begin January 1978 (Winter Quarter). Enrollment in the program will be limited to forty students each year. Enrollment in finance courses 5404, 5303, 5324, and 5344 will be limited to participants in the CIB program. Each course will meet for four hours and 10 minutes one day each week during the academic quarter. The proposed meeting site is the Florida International University Downtown Center, which is currently located at the Mlami Dade New World Center.

## EMERGENCY MEDICAL SERVICES (EMS) SYSTEMS ADMINISTRATION

The objective of the E.M.S. Management Certificate program is to train managers of E.M.S. Systems (such as Emergency Departments in hospitals, fire rescue squads and the Coast Guard), to manage efficient and effective E.M.S. Systems.

In addition, it is designed to help planners, coordinators and evaluators of E.M.S. systems on the local, regional and state level to make better decisions in an environment that is rapidly changing.

The program focuses particularly on those people who are already in the field of Emergency Medical Services. We hope to meet individual needs of these trainees, considering their expertise, areas of responsibility, and time available for training. The program will educate them so that they are better prepared to provide expertise, either in the developmental or operational phases of local, regional and state E.M.S. systems.
Course Sequence:
The Certificate program consists of four required courses; each carries five academic credits. The required courses are:

HCA 6113 Health Delivery Systems
HCA 6508 Health Management
HCA 5135/EMT 5008 Introduction to E.M.S.
HCA 6316/EMT 6936 E.M.S. Seminar
For additional information contact the Coordinator, Health Care Management Programs, Division of Management.

## INSURANCE

The Certificate Program in Professional Insurance Accomplishment is designed to enable individuals in (or wishing to enter) the insurance industry to obtain recognition for their attainments in insurance education.

The courses leading to the Certificate may be taken by both degree-seeking students as part of their regular programs, or by special, non-degree seeking students who may be seeking professional recognition and qualifications.

The Certificate Program requires participants to obtain 30 quarter hours, or six five-credit hour classes, in 4000 level insurance courses. The Insurance Certificate requires participants to take five required courses and one elective course.

Those required are:

| RMI 4015 | Introduction to Insurance |
| :--- | :--- |
| RMI 4212 | Property Insurance I |
| RMI 4213 | Property Insurance II |
| RMI 4220 | Casualty Insurance I |
| RMI 4221 | Casualty Insurance II |

The elective should normally be selected from:
RMI 4115 Life Insurance
RMI 4135 Employee Fringe Benefit Programs
RMI 4145 Business and Estate Insurance Planning
Inquiries concerning the Certificate in Professional Insurance Accomplishment should be addressed to the Department of Marketing and Environment.

## MANAGEMENT INFORMATION SYSTEMS

This program is designed as a three course sequence for systems professionals and users heavily involved in information systems development. These courses may be taken as part of a regular degree program or as a special student not pursuing a formal degree. The purpose of the Program is to provide advanced study to complement the work experience of practitioners who deal with information systems problems on a regular basis. The sequence consists of three courses to provide this complementary background:

$$
\begin{array}{ll}
\text { MAN } 5830 & \text { Planning for Information Systems } \\
\text { MAN } 5831 & \text { Analysis of Information Requirements }
\end{array}
$$

## MAN 5832 Design of Information Systems

Additional information about these offerings may be obtained from the MIS Certificate Program Coordinator in the Department of Management.

## MARKETING

A Certificate in Marketing program is offered through the Department of Marketing and Environment. The Certificate program is open to both degree and non-degree seeking students interested in acquiring knowledge and skills in Marketing, and documentary evidence of their accomplishment. The Certificate program is aimed specifically at majors throughout the University, particularly those students in the College of Arts and Sciences and the professional schools, and at individuals currently working in the business world. The Certificate program seeks to enhance individual capabilities for the discharge of responsibilities at a high performance level, while giving a measure of professional recognition for the achievement of significant competence in the field.

The Certificate program is comprised of a set of six five-credit hour undergraduate marketing courses - one introductory course at the junior (3000) level, the prerequisite for all the other courses in the program, and five at the senior (4000) level.

There are four required courses:
MAR 3023 Marketing Management
MAR 4153 Retailing Management I
MAR 4154 Retailing Management II
MAR 4303 Advertising Management
For their electives, students are recommended to take two courses from the following regularly offered Marketing classes and other selected courses:

| MAR 4713 | Cases in Marketing Management |
| :--- | :--- |
| MAR 4243 | International Marketing |
| MAR 4503 | Consumer Behavior |
| MAR 4613 | Marketing Research |
| MAR 4344 | Advertising Campaign Management |
| MAR 4103 | Personal Selling |
| MAR 4203 | Marketing Channels |
| MAR 4723 | Marketing of Small Business Enterprises |
| MAN 3712 | Business \& Society |
| MAN 4771 | Small Business Management |

On satisfactory completion of the program, signified by a "C" grade or better in each course, students will, on application, receive a Certificate in Marketing signed by the Departmental Chairperson and Dean of the School of Business and Organizational Sciences.

## PERSONNEL ADMINISTRATION

The objective of the Certificate program in Public Administration is to provide training in advanced personnel management techniques and methods to personnel professionals who do not necessarily wish to seek a degree. The program is aimed at developing immediately applicable skills in individuals who are assumed to already have an adequate foundation in the concepts and role of the personnel management function. A Certificate of Completion signed by the Dean of the School will be awarded to any student who completes the program of four five-credit hour courses ( 20 hour total) in the personnel management areas of concentration at the graduate level.
Course Sequence:
The Certificate program consists of the following four required courses, which must be taken in this order:

| MAN 5930 | FALL: Seminar in Personnel Management |
| :--- | :--- |
| MAN 6321 | WINTER: Personnel Selection and Placement |
| MAN 6405 | SPRING: Labor Relations |
| MAN 6351 | SUMMER: Personnel Training and Development |

For students who desire to take additional elective courses, the following are recommended:

MAN 6331 Wage and Salary Administration
MAN 6411 Collective Bargaining
MAN 4151 Behavioral Science in Management
For information concerning admission to the program contact the Division of Management.

## REAL ESTATE AND REGIONAL DEVELOPMENT

A Certificate program in Real Estate has been initiated by the real estate faculty in order to provide Real Estate professionals with an opportunity to do advanced University work in their area of specialization. A Certificate of Completion will be awarded to any student who completes a program of six five-credit hour courses ( 30 hours total) in the Real Estate area of concentration at the upper division or graduate level. The courses will be selected during an orientation course with an advisor once the student has been admitted to the program.

This program is designed for individuals who are not necessarily interested in working for a graduate degree, but who desire advanced training in their area of specialization. The series of six courses covers major topics in the real estate industry. The courses cover these topics in depth from both a theoretical and practical viewpoint.

The Certificate program will be given at a level equivalent to upper division and graduate work. In order to maintain the integrity of the Certificate program a " $B$ " average is required for all course work taken, even though it is not a regular degree program. Grade "B" level performance is considered above-average work. An individual will not be awarded the Certificate unless he or she performs at an above-average level overall for the six courses in the sequence.

Qualification for the Certificate program is judged on the basis of the competence of the individual in his profession and not on previous college work or special examination. The interested professional discusses his background and interests with a faculty advisor, who determines the appropriateness of the Certificate program for the individual and the acceptability of his qualifications. Upon acceptance by the advisor, the individual registers for a noncredit two hour orientation course through Continuing Education. The fee for this course is $\$ 25.00$. The student then registers as a special student to satisfy the six course requirement for the Certificate.

## TRANSPORTATION MANAGEMENT

The Department of Marketing and Environment offers a Certificate program in Transportation Management. The program is a vehicle to enable students employed in, or wishing to enter, the transportation industry to obtain recognition for their attainments in transportation education.

The courses leading to the Certificate may be taken by both degree-seeking students as part of their regular programs, or by special, non-degree seeking students who wish to attain professional recognition and qualifications.

The Certificate program requires participants to obtain 30 quarter hours, or six five-credit hour classes (of which 20 hours are required, 10 hours elective) in 4000-level transportation courses.

The required courses are:
TRA $4240 \quad$ Transportation Systems and Services
TRA 4410 Air Transportation
TRA $4411 \quad$ Airport Management
TRA 4412 Air Carrier Management
The electives should be selected from:
TRA 4510 Mass Transportation and Urban Problems
TRA 4320 Transportation Regulation
TRA 4101 Transportation Rate Making
TRA 4012 Transportation Logistics
TRA 4380 Transportation Policy

## COURSE DESCRIPTIONS:

## ACCOUNTING

## DEFINITION OF PREFIX <br> ACC-Accounting.

## ACC3300 ACCOUNTING FOR DECISIONS

(5)

Accounting concepts and techniques essential to administration of a business enterprise and the determination of income and tinancial position: asset and equity accounting in proprietorships and corporations.
ACC 3882 INTRODUCTION TO THE ACCOUNTING PROCESS
Analysis of the accounting cycle and the technical procedures used in classifying, summarizing, and interpreting the transactions of a business entity. A strongly recommended elective to be completed by those wishing to reintorce their financial accounting knowledge prior to taking ACC 3303.
ACC 3949 COOPERATIVE EDUCATION-ACCOUNTING I
(1-5)
A special program permitting accounting students to work during alternating quarters, up to a maximum of 3 quarters, in a public accounting firm, an industrial or a not-for-profit enterprise, or a governmental agency, in a job related to the area of concentration in their university program.

## ACC 4102 FINANCIAL ACCOUNTING I

An exploration of concepts, standards, and principles underlying financial reporting, with emphasis on the measurement, analysis, and interpretation of income and changes in tinancial position (funds flow). Prerequisite: 9 quarter hours of introductory financial and managerial accounting, with grades of " C " or better; or ACC 3300 with a grade of " $B$ " or better.
ACC 4122 FINANCIAL ACCOUNTING II
A continuation of ACC 4102, with emphasis on the accounting concepts, standards, and principles underlying the measurement and reporting of financial position. Prerequisite: ACC 4102, with grade of " C " or better.
ACC 4201 FINANCIAL ACCOUNTING III
A continuation of ACC 4122, with emphasis on accounting for partnerships, consolidated financial statements, and financial statement analysis. Prerequisite: ACC 4122, with grade of " C " or better.
ACC 4248 TOPICS IN FINANCIAL ACCOUNTING
An in-depth study of recent developments in financial accounting. Prerequisite: ACC 4122, ACC 5111, or equivalent.
ACC 4271 INTERNATIONAL ACCOUNTING
Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transfers of funds and income measurement; and the role of accounting in national economic development.
ACC 4301 MANAGERIAL ACCOUNTING
Determination and control of production costs; job order and process systems; actual and standard costs, budgetary control; cost and profit analyses; and other methods of performance measurement and analysis. Prerequisite: ACC 4102 and MAN 3503 with grades of " C " or better.
ACC 4348 TOPICS IN MANAGERIAL ACCOUNTING
An in-depth study of recent developments in managerial accounting. Prerequisite: ACC 4301, or equivalent.
ACC 4501 INCOME TAX ACCOUNTING
A survey of federal income taxation with primary emphasis on the taxation of individuals and corporations.
Prerequisite: ACC 4122 with grade of " C " or better.
ACC 4522 TAXATION OF CORPORATIONS AND PARTNERSHIPS
An in-depth study of income taxation of corporations and partnerships, including tax planning. Prerequisite: ACC 4501, or 5511, or equivalent.
ACC 4548 TOPICS IN TAXATION
An in-depth study of recent legislative, administrative, and judicial developments in taxation. Prerequisite: ACC 4501, or equivalent.

## ACC 4601 AUDITING

Standards and procedures applied by independent public accountants, ethics and responsibilities of auditors, development of audit programs, accumulation of audit evidence, and reporting. Prerequisite: ACC 4122 with grade of "C" or better.

## ACC 4648 TOPICS IN AUDITING

An in-depth study of recent developments in auditing. Prerequisite: ACC 4601, or equivalent.

## ACC 4731 ACCOUNTING SYSTEMS AND MANAGERIAL ANALYSIS

A continuation of ACC 4301, with emphasis on management performance measurement and analysis; design of accounting systems; internal control; management systems audits; and use of data processing equipment. Prerequisite: ACC 4301 and COP 3172 with grades of " C " or better, and knowledge of COBOL language.

## ACC 4803 (See BUL 4661)

## ACC 4905 INDEPENDENT STUDY IN ACCOUNTING

Individual conferences, supervised readings, and reports on personal investigations. Written permission of the instructor, Department Chairperson, and Dean required.

For groups ol students who wish an intensive study ol a particular topic or a limited number of topics not otherwise oflered in the curriculum. Written permission ol the instructor, Department Chairperson, and Dean required.
ACC 4949 COOPERATIVE EDUCATION-ACCOUNTINGII
ACC 5111 STANDARDS AND PRINCIPLES OF FINANCIAL ACCOUNTING
(5) $(F, S)$

A survey ol ollicial pronouncements on accounting standards and principles. Prerequisite: ACC 4122 or 5311, or equivalent.

## ACC 5131 ADVANCED FINANCIAL ACCOUNTING

Accounting for partnerships, consolidated financial statements, diversified and multinational corporations, liduciary relationships, and not-lor-prolit institutions. Prerequisite: ACC 4122 or ACC 5311, or equivalent, or consent ol instructor. (No credit given if ACC 4201 or equivalent completed previously.)
ACC 5211 ACCOUNTING PROBLEMS
Intensive study ol selected advanced accounting topics, including problems of multiple ownership; Iund accounting; actuarial applications; questions and problems from recent CPA examinations. Prerequisite: ACC 5131, or equivalent, or consent of instructor.
ACC 5311 FINANCIAL ACCOUNTING
An exploration of concepts, standards, and principles underlying financial reporting, with emphasis on the measurement, analysis, and interpretation of assets, equities, income, and changes in financial position. Prerequisite: ACC 3303 or equivalent, and consent of instructor; or ACC 6313.
ACC 5511 ACCOUNTING FOR INCOME TAXES
Exploration of concepts of federal income taxes and tax planning, with emphasis on the determination of taxable income for the individual, the partnership, and the corporation. Prerequisite: ACC 5311 or equivalent, or consent of instructor. (No credit given it ACC 4501 or equivalent completed previously.)

## ACC 5611 AUDITING

The standards and procedures applied by independent public accountants, and their ethical considerations and responsibilities in the rendering of opinions on enterprise financial statements; internal auditing and control; and accounting systems. Prerequisite: ACC 5311, or equivalent, or consent of instructor. (No credit given it ACC 4601, 4731, or equivalents completed previously.)
ACC 5734 ACCOUNTING INFORMATION SYSTEMS ANALYSIS
Coverage of accounting usage of computers. Emphasis on auditing and control of EDP systems. Use of flowcharting; decision tables; computer software; and case studies. Coverage of EDP topics in the CPA examination. Prerequisite: ACC 3300 or ClS 3000 or equivalent; or ACC 6011 and MAN 6830 or equivalent.
ACC 5865 GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING
Budgeting, accounting, and reporting standards and practices for government and other not-for-profit entities. Prerequisite: ACC 4122 or ACC 5311, or equivalent.

## ACC 6275 INTERNATIONAL ACCOUNTING

Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transters of funds and income measurement; the role of accounting in national economic development. Prerequisite: ACC 5131, or equivalent, or consent of instructor.
ACC 6291 SEMINAR IN FINANCIAL ACCOUNTING THEORY I
A study of the theoretical structure of accounting, with special attention to asset and income definition, recognition, and measurement; and an appraisal of pronouncements of professional accounting organizations. Prerequisite: ACC 5131, or equivalent, or consent of instructor.

## ACC 6391 SEMINAR IN MANAGERIAL ACCOUNTING I

Analysis of transfer pricing; product pricing; incremental profit analysis; decision models; alternative performance measurement techniques; and other advanced topics. Prerequisite: ACC 4301 or ACC 6313, or equivalent.
ACC 6411 MANAGERIAL ACCOUNTING
In-depth study of the determination and control of production cost; budgetary control; cost volume and profit analyses; and considerations of alternative methods of performance measurement and analysis. Prerequisite: ACC 4301, or ACC 6313, or equivalent.
ACC 6512 INCOME TAX PLANNING AND RESEARCH
An in-depth study of the taxation and planning aspects of a variety of business and other transactions. Emphasis will be upon developing an ability to perceive tax issues and to conduct research to resolve them. Prerequisite: ACC 4501 or ACC 5511, or equivalent.
ACC 6513 TAX ACCOUNTING FOR MANAGERS
An exploration of the concepts of federal income taxation and tax planning, from the point of view of the manager.

## ACC 6531 TAXATION OF CORPORATIONS I

The study of the federal tax consequences of the formation, operation, reorganization and liquidation of corporations; election of Subchapter S status; the federal tax considerations in choosing the corporation as a vehicle for commercial activity. Prerequisite: ACC 6512, or permission of the instructor and the advisor for the taxation specialization.

## ACC 6553 ESTATE AND GIFT TAXATION

The study of the federal estate tax and federal gift tax provisions. Prerequisite: ACC 6512, or permission of the instructor and the advisor for the taxation specialization.

A study of the tax accounting concepts and the judicial doctrines inherent in the federal tax law and in tax planning. Prerequisite: ACC 4501 or ACC 5511, or equivalent.

## ACC 6555 TAXATION OF CORPORATIONS II

An in-depth study of the tax benefits inherent in multiple corporate groups. Determining income as a single taxable entity is emphasized. The limitations on the group as a whole, especially liberalized carryover provisions, are also explored. Prerequisites: ACC 6512 and ACC 6531.
ACC 6556 PARTNERSHIP TAXATION
The intensive study of the formation, operation, and dissolution of a partnership (general and limited), and the use of the partnership to establish and operate tax sheltered investments in real estate, oil and gas, leasing, larming, cattle, etc. Prerequisite: ACC 6531 or permission of the instructor.
ACC 6557 FIDUCIARY ACCOUNTING AND TAXATION
The study of the income taxation of estates, trusts, and the beneficiaries thereof, including the determination of distributable net income, and throwback rules. The grantor trust and income in respect of a decedent is emphasized. The use of trusts in tax and estate planning is also explored. Prerequisites: ACC 6512 and ACC 6553.
ACC 6558 CURRENT DEVELOPMENTS IN TAXATION
The study of recent legislative, administrative and judicial developments affecting taxation is effected through the application of research techniques to income tax and estate tax planning. Prerequisites: ACC 6512 and ACC 6554.
ACC 6559 SEMINAR IN TAXATION
Intensive study of a particular topic or a limited number of topics. The topics included in this course will depend upon the availability of faculty with expertise in the following special classes of tax problems: advanced corporate taxation; taxation of deferred compensation; taxation of not-for-profit institutions; interstate, state and local taxation; and others, as current developments demand. Prerequisites: ACC 6512 and ACC 6554.

## ACC 6582 INTERNATIONAL TAXATION

The complex lederal income tax provisions applicable to the foreign income of U.S. citizens, residents, and corporations, and to foreign persons with U.S. income is surveyed. The tax policy of developing and developed countries with respect to toreign investment is discussed in the context of international tax planning. Prerequisite: ACC 6512 or permission of the instructor and the advisor for the taxation specialization.
ACC 6612 AUDITING FOR MANAGERS
An exploration of the concepts and objectives of internal control, auditing, and audit reports from the point of view of the manager.
ACC 6651 STUDIES IN AUDITING
Professional and technical aspects of auditing practice; ethics and legal responsibilities; review of field work emphasizing materiality, sampling, and working papers, reporting problems including long-form and special purpose reports; study of recent auditing developments. Prerequisite: ACC 4601 or ACC 5611 , or equivalent.
ACC 6735 SEMINAR IN ACCOUNTING INFORMATION SYSTEMS I
Application of general systems concepts to accounting; operational, and related planning and control information requirements. Data base management systems, on-line real-time systems, time-sharing, etc., and applications in accounting. Emphasis on the analysis of computer-based controls. Case histories and projects. Prerequisite: ACC 5734, or equivalent.
ACC 6745 SEMINAR IN ACCOUNTING INFORMATION SYSTEMS II
A continuation of ACC 6735, with emphasis on the theories underlying complex information systems.
Prerequisite: ACC 6735, or equivalent.
ACC 6822 BEHAVIORAL ACCOUNTING
Study of the effect of the process and products of accounting and of the relation of changes in the process and products to individual and group behavior; consideration of ways in which accounting can aid individuals and organizations to attain their goals. Prerequisite: ACC 4121 or ACC 5311 and 4301 or equivalents.
ACC 6832 ACCOUNTING AND QUANTITATIVE METHODS
Study of statistical and management science techniques that are or may be utilized in financial and managerial accounting. Prerequisites: MAN 3503, QMB 3150 and CIS 3000, or equivalents.

## ACC 6845 SEMINAR IN MANAGERIAL ACCOUNTING II

An intensive study of the controllership lunction in corporate organizations; an appraisal of the controller's role in planning, accounting lor, and evaluating company performance. Prerequisite: ACC 6391, or equivalent.
ACC 6907 INDEPENDENT STUDY IN ACCOUNTING
Individual conlerences; supervised readings; reports on personal investigations. Consent of faculty tutor and Divisional Chairperson required.
ACC 6910 MASTER'S PROJECT
(5) (F,W,S,SS)

An individualized research project and report, which may include field experience with a firm or agency, library research, computer programming, or project development. Permission of the faculty advisor is required before registering lor the course. The course should be taken during the last half of the student's graduate program.
ACC 6932 SEMINAR IN FINANCIAL ACCOUNTING THEORY II
A continuation of ACC 6291, with emphasis on the problems of accounting for price-level changes and other current issues. Prerequisite: ACC 6291, or equivalent.

## BUSINESS ADMINISTRATION CORE COURSES

## DEFINITION OF PREFIXES

ACC-Accounting; CIS-Computer and Information Systems; FIN-Finance; MAN-Management; MAR-Marketing; QMB—Quantitative Methods in Business; STA-Stalistics.

## ACC 3300 ACCOUNTING FOR DECISIONS <br> (5) (F,S,W,SS) <br> Accounting concepts and techniques essential to administration of a business enterprise and the deter-

 mination of income and financial position; asset and equity accounting in proprietorships and corporations.ACC 3303 ACCOUNTING FOR PLANNING AND CONTROL (5) (F,W,S,SS)

Use of accounting concepts, techniques and financial data as an aid to management planning, coordination and control. Topics covered include cost behavior and control; budgeting; analysis concepts; performance measurement and analysis; and capital budgeting. Prerequisite: ACC 3300, or equivalent.

## CIS 3000 INTRODUCTION TO INFORMATION SYSTEMS

Survey of the major problems of information systems and information processing in organizations. Brief study of basic computer concepts; the information systems development cycle; the relation between information systems and decision-making; and the general systems framework for information problems. Prerequisites: Completion of the Computer Programming Proficiency Requirement, MAN 3010 and ACC 3303.

ECO 3003 ECONOMICS, MAN AND SOCIETY
(5) (F,S,W,SS)

Relationship of economics to individual and group action. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups. Public issue interpretation in the light of economic theory.
ECO 3432/3202 APPLIED MACROECONOMICS
(5) (F,W,S,SS)

Aggregate economic performance and business conditions analysis. Analysis of the nature and causes of business fluctuation. Economic expansions and stagflation; public policies for economic stability; fiscal policy, monetary policy and incomes policy. Sectoral analysis and macroeconomic forecasting. Prerequisite: ECO 3003, or equivalent.

## FIN 3403 FINANCIAL MANAGEMENT

A study of financial decision making in the corporate form of enterprise. An analysis of the sources and uses of funds. Emphasis is placed on working capital management; capital budgeting techniques; short and long term financing; and capital structure and the value of the firm. Prerequisite: ACC 3300, or equivalent.
MAN 3010 ORGANIZATION AND MANAGEMENT
An analysis of organizations and the management processes of planning, organizing, directing, and controlling in the context of socio-technical systems. Individual, group, intergroup, and organizational responses to various environments and technologies are studied, as are pertinent techniques of manpower management.
MAN 3503 MANAGERIAL DECISION MAKING
This course concentrates on practical decision problems for the manager in an organization. Emphasis is placed on the environment and on the definition of and practical approaches to solving managerial problems. Topics to be included are decision-making theory, linear programming, network analysis, inventory models and simulation. Prerequisites: College Algebra, Statistics, and QMB 3150.
MAN 3602 BUSINESS IN AN INTERNATIONAL ENVIRONMENT
Introductory analysis of the business system and management decision-making in the international operation of enterprise. Special emphasis given to international trade and investment; foreign exchange; financial markets; political and cultural interactions between host societies and multinational enterprise. Prequisite: ECO 3432.
MAN 3712 BUSINESS AND SOCIETY
An examination of the interaction between business and the social, political, and legal order. Analysis of the appropriate and actual relationships and responsibilities of business to its various publics. The nature of property and profits; the balancing of claims of owners, employees, customers and citizens; elements of constitutional law; competition and monopoly; anti-trust policies and practices. Stress on the broad effects of the total environment upon the administration of the private sector of organization. Prerequisite: ECO 3003, or equivalent.
MAN 4722 POLICY ANALYSIS
The use of cases, guest lecturers, and gaming, to integrate analysis and measurement tools, functional areas, and public policy issues. The objective is to develop skill in broad areas of rational decisionmaking in an administrative context of uncertainty. Prerequisite: Completion of all core requirements. Should be taken in last academic quarter of senior year.

## MAR 3023 MARKETING MANAGEMENT

(5) (F,W,S,SS)

A descriptive study emphasizing the functions and institutions common to marketing systems.

## MAR 4254 INTERNATIONAL BUSINESS POLICY

Project and case analysis on international business decision-making. Cross-functional approach emphasizes interactions among dec,sions, including those relating international and domestic activities. Focus is on integrating and evaluating decisions in a multinational enterprise environment. Should be taken in last quarter of senior year; open only to international business majors, in lieu of MAN 4722.

Application of quantitative techniques to business problems. General topics include the process of quantitative decision making, sampling, and forecasting. The latter part of the course will concentrate on specific techniques applicable to the student's functional major. Prerequisites: College Algebra, Slatistics.
STA 3132 QUANTITATIVE METHODS FOR ADMINISTRATION
(5) (F,S,W,SS)

The use ol statistical tools in management; introduction of probability, descriptive statistics, and slatistical inference as included.

## BUSINESS ENVIRONMENT AND POLICY

DEFINITION OF PREFIXES
IDS—Interdisciplinary Studies; MAN—Management; SSI—Social Sciences-Interdisciplinary.

## IDS 4154 BUSINESS AND THE ECOLOGY

A course on the elfect of industrialization and technological change on the physical environment. An examination of the current legal, economic and political consequences of pollution and environmental damage, and the abatement of these factors. Prerequisite: MAN 3712, or consent of instructor.
MAN 4070 MODERN BUSINESS HISTORY
An examination of the history of the corporation in the United States since the Civil War, up to, and including, the development of the multinational corporation. An examination of the social and economic forces operative in the development of the corporate form. A full exploration of the current power of the corporate form - and legal, and other, efforts to limit this power. Prerequisite: MAN 3712, or consent of the instructor.
MAN 4711 SOCIAL RESPONSIBILITY AND SOCIAL ACCOUNTING
The sources of the conception of corporate social responsibility. An examination of the classical doctrines as well as new approaches to the conception of the corporation as a citizen. A portion of the course will be devoted to a discussion of social accountability and social accounting as a specific problem in corporate input. Prerequisite: MAN 3712, consent of instructor.
MAN 4716 BUSINESS ENVIRONMENT AND POLICY FORMATION
A course studying the conceptual and environmental forces which establish the framework of business strategy and tactical decision. A critical analysis of conceptual processes which can limit the executive's capacity to respond to change in the total and in the business envionment. Prerequisite: MAN 3712, or consent of instructor.
MAN 4905 INDEPENDENT STUDY IN BUSINESS ENVIRONMENT
Individual conterences, supervised reading, reports on personal readings.
MAN 4934 SPECIAL TOPICS IN BUSINESS ENVIRONMENT
(1-5)
Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise oflered in the curriculum.
MAN 4910 INDEPENDENT RESEARCH IN BUSINESS ENVIRONMENT
Individual conlerences, supervised research, reports on personal research.

## SSI 4125 SOCIAL SCIENCE OR BUSINESS

Sociological, anthropological, and psychological studies of corporate management and the effect of corporate behavior. Emphasis will be on existing data and on the development of research-oriented proposals intended to develop new insights into the application of social science lechniques to the problems of business as an institution and as part of society. Prerequisite: MAN 3712, or consent of instructor.

## FINANCE COURSE LISTINGS

DEFINITION OF PREFIX
FIN-Finance

## FIN 3100 PERSONAL FINANCE AND RESOURCE MANAGEMENT

The application of organization, finance, and management concepts and methods, to aid the individual in making personal financial and career decisions. This course CANNOT be used to meet the finance major concentration requirements.

## FIN 3200 COOPERATIVE EDUCATION IN FINANCE

Quarters of full-time classroom study are alternated with quarters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's understanding of the relationship between theory and practice in an authentic work environment. Prerequisite: None.

## FIN 4200 COOPERATIVE EDUCATION IN FINANCE

Quarters of full-time classroom study are alternated with quarters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's underslanding of the relationship between theory and practice in an authentic work environment. Prerequisite: None.

## FIN 4303 FINANCIAL MARKETS AND INSTITUTIONS

Financial markets and the role of linancial intermediaries in these markets. Emphasis will be upon the objectives and policies of linancial intermediaries within the constraints of law and regulatory authorities. Prerequisite: FIN 3403, or equivalent.
FIN 4313 FINANCIAL HISTORY OF THE UNITED STATES
Origins of the American financial system. Early American history of financial intermediaries. Evolution in

The management of bank assets and liabilities; specialized banking functions; and the role of the commercial bank in financing business. Prerequisite: FIN 3403, or equivalent.

## FIN 4344 CREDIT ANALYSIS AND LOAN EVALUATION

Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and lactoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants: subordinations and guarantees; foreign exchange; international transactions and leasing. Prerequisite: FIN 3403 or equivalent.
FIN 4404 POLICIES FOR FINANCIAL MANAGEMENT
The process of securing and allocating funds within the organization, with emphasis on the relevant financial decision-making and policy aspects. Prerequisite: FIN 3403, or equivalent.

## FIN 4419 CAPITAL BUDGETING TECHNIQUES AND APPLICATIONS

The application of contemporary theory and techniques to the problem of long term resource allocation. A review of capital budgeting techniques and the implications the investment and management of capital have toward the goal of maximizing the value of the firm. Prerequisite: FIN 4404, or equivalent.

## FIN 4502 SECURITY ANALYSIS

The examination of the determinants of the values of common and preferred stocks, bonds, and warrants. The liming of security purchases and sales and an introduction to portfolio construction techniques. Prerequisite: FIN 3403, or equivalent.
FIN 4504 PORTFOLIO ANALYSIS AND MANAGEMENT
Financial theories will be applied to the construction of portolios. Portfolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial institutions. Prerequisite: FIN 4502, or equivalent.
FIN 4610 INTERNATIONAL FINANCIAL MANAGEMENT
Capital budgeting operational analysis, and financial decisions in the multinational context. Working capital management and intratirm fund transfers. Measurement and evaluation of risk of internationally diversified assets. Prerequisite: FIN 3403, or equivalent.
FIN 4713 FINANCIAL POLICIES FOR NOT-FOR-PROFIT ORGANIZATIONS
Financial processes relevant to governmental and other not-for-profit organizations. Emphasis is on legal, political, and market constraints on securing, managing, and expending funds. Prerequisite: FIN 3403, or equivalent.
FIN 4904 INDEPENDENT STUDY IN FINANCE
(1-10)
Individual conferences, supervised readings, reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
FIN 4934 SPECIAL TOPICS IN FINANCE
For groups ol students who desire an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

## FIN 5223 FINANCIAL MANAGEMENT OF SAVINGS AND LOANS

Financial management of savings and loan associations and other mortgage lenders; supply and demand of mortgage funds: state and federal regulatory bodies' legal and institutional characteristics related to mortgage markets. Prerequisite: FIN 3403, or FIN 6428, or equivalent.
FIN 5303 FINANCIAL INTERMEDIARIES AND MARKETS
The role of financial institutions: the sources and uses of funds of financial intermediaries; the objectives and consraints of these intermediaries; and the supply and demand for loanable funds in different financial markets. Prerequisite: Limited to people admitted to Certificate in Banking program only.
FIN 5314 WORKING CAPITAL MANAGEMENT
Intermediate theories and techniques of cash, accounts receivable, inventory, and accounts payable management. Prerequisite: FIN 3403 or FIN 6428, or equivalent.
FIN 5324 COMMERCIAL BANK MANAGEMENT
The management of bank assets and liabilities; specialized banking functions; and the role of the commercial bank in financing business. Prerequisite: Limited to people admitted to Certificate in Banking program only.
FIN 5344 CREDIT ANALYSIS AND LOAN EVALUATION
Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; internationa! transactions and leasing. Prerequisite: Limited to people admitted to Certificate in Banking program only.

## FIN 5404 POLICIES FOR FINANCIAL MANAGEMENT

The process of securing and allocating funds within the business organization, with emphasis on the relevant tinancial decision-making and policy aspects. Prerequisite: Limited to people admitted to Certificate in Banking program only.

## FIN 5473 SMALL BUSINESS FINANCE

The financial markets, financial instruments, and managerial policies and techniques available to potential and existing entrepreneurs and owner/managers. Emphasis will be upon analysis of areas of opportunity for small business; analysis of financing alternatives; and analysis of protitability. Prerequisite: FIN 3403 or FIN 6428, or equivalent.

An examination of the risk reward structure of stock options, commodity futures and currency futures. An
examination of the structure of the markets lor these securities and strategies for their use in portfolio construction. Prerequisite: FIN 4502 or FIN 6516, or equivalent.
FIN 6246 FINANCIAL MARKETS AND INSTITUTIONS
Analysis of the characteristics and efficiency of the money markets and capital markets. Types of money market and capital market instruments, and role of financial institutions in these markets. Prerequisite: None.
FIN 6315 MANAGEMENT OF DEPOSIT INSTITUTIONS
The objectives, constraints, and policies applicable to the management of financial inslitutions having primary deposit lunctions: commercial banks, savings and loan associations, savings banks, and credit unions. Emphasis will be upon commercial banks which constitute the core institution of the financial world. Prerequisite: FIN 6246, or equivalent.
FIN 6316 MANAGEMENT OF NONDEPOSIT INSTITUTIONS
The objectives, constraints, and policies applicable to the management of the nondeposit financial instifutions: life insurance companies, property and casualty insurance companies, pension funds, investment companies, real estate investment trusts, and finance companies. Prerequisite: FIN 6246, or equivalent.
FIN 6320 CURRENT ISSUES IN COMMERCIAL BANKING
Main policy issue in commercial banking and the role of regulatory authorities. Presentation includes bank mergers and holding companies; national bank branching; and the present structure and prospects of financial sector. Prerequisite: FIN 6315, or equivalent.
FIN 6426 FINANCIAL MANAGEMENT POLICIES
The selection and management of current and permanent assets to achieve corporate objectives. The selection and management of alternative sources of funds to obtain the optimal capital structure. Prerequisite: FIN 6428, or equivalent.
FIN 6436 CAPITAL BUDGETING AND LONG TERM RESOURCE ALLOCATION
The theory of capital allocation at the level of the firm, and empirical findings. Decision models and their application. The pattern of capital expenditure of industries and of the economy as a whole. Investment determinants. Prerequisite: FIN 6428, or equivalent.
FIN 6456 QUANTITATIVE METHODS IN FINANCIAL ANALYSIS
The applications of computer techniques to financial management of manufacturing firms and financial institutions. Prerequisite: FIN 6428, or equivalent.
FIN 6516 SECURITY ANALYSIS
An analysis of contemporary securities markets and their operations. The determinants of the risk reward structure of equity and debt securities. Prerequisite: None.
FIN 6525 PORTFOLIO MANAGEMENT
Financial theories will be applied to the construction of porttolios. Portolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial instifutions. Prerequisite: FIN 6516, or equivalent.

## FIN 6636 INTERNATIONAL FINANCE

A comparative study of the inslitutional characteristics and internal efficiency of developed and underdeveloped capital markets. The relationships between world and capital markets and prospects for integration. The role ol multilateral institutions, multinational corporations, states, and the structure of trade, in the international short and long term capital flows. The development of financial centers. Prerequisite: FIN 6428, or equivalent.
FIN 6716 FINANCIAL MANAGEMENT OF GOVERNMENTAL ORGANIZATIONS
The budgetary process of identifying, justifying, and allocating funds. The securing of funds in the market and the efficient allocation of funds. Prerequisite: None.

## FIN 6806 THE THEORY OF FINANCE

The study of the development of the theory of finance and its implications for the financial decisions made by the managers of business firms. Topics include: utility theory; capital budgeting; portfolio theory; capital market equilibrium; multi period valuation; and the cost of capital. Financial decision making is explored under both certainty and uncertainty and within the context of both perfect and imperfect markets. Prerequisite: FIN 6428, or equivalent.

## FIN 6906 INDEPENDENT STUDY IN FINANCE

(1-10)
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty futor and division chairman required.
FIN 6915 MASTER'S PROJECT IN FINANCE
(1-10)
An individualized research project and report, which may include field experience with a firm or agency; library research; computer programming; or project development. Permission of the tacully advisor is required before registering for the course. The course should be laken during the last half of the student's graduate program. Consent of faculty futor and Department Chairperson required.
FIN 6936 SPECIAL TOPICS IN FINANCE
(1-5)
For groups ol students who desire intensive study of a particular lopic or a limited number of topics not otherwise offered in the curriculum. Consent of taculty supervisor and division chairman required.

## HEALTH CARE MANAGEMENT

## DEFINITION OF PREFIXES

EMT-Emergency Medical Technology; HCA-Health Care Administration.
HCA 4203 HEALTH CARE FINANCIAL. AND ACCOUNTING MANAGEMENT
Study of the linancial lramework within which health care organizations and facilities operate. The course covers the principles ol working capilal management, capital budgeting, and the capitalizalion process in
the health care environment. Topics emphasized include inventory management; accounts receivable management; sources of operating revenue; third party payers; budgeting lor operating costs; long-term investment; and long-term financing. The student is expected to understand and be able lo participate in the linancial decision-making process of health care organizations.
HCA 4711 QUANTITATIVE METHODS FOR HEALTH CARE
This course is designed to introduce the student of health care to various techniques of health data analysis. The lormat and development of the course material are intended for those with little mathematical background, basic algebra being the only requirement lor the course. Topics covered are chosen for and related to their practical and potential applications in the health care area.
HCA 5135 EMT 5008 INTRODUCTION TO EMERGENCY MEDICAL SYSTEMS ADMINISTRATION (5) This course is designed to explore the development and implementation of emergency medical service systems. It will cover history, legislation, and structure and planning of emergency medical services.

## HCA 5505 HUMAN RESOURCES MANAGEMENT IN HEALTH FACILITIES

The personnel administration lunction in the health facilities. Includes study of personnel policies and procedures; recruitment, training, and retention of empioyees; personnel relations and benefit programs; motivation in human productiveness; group costs; and the study of labor relations in the health field.

## HCA 5611 HEALTH PLANNING TECHNIQUES

Basic health planning methods and procedures. Functions and special support techniques of hospitals, medical public health, nursing homes, educational and similar associations. Prerequisites: 1 semester of basic statistics, HCS 3300.

## HCA 6101 MEDICAL CARE ADMINISTRATION

This course examines illiness as a phenomenon which both influences and is influenced by society. As such it can be viewed as a form of social deviance which the patient exhibits and the society at large attempts to control. An examination of concepts, and methodologic and substantive issues, in the study of conceptual, social, psychological and demographic factors related to the occurrence of morbidity and mortality.
HCA 6113 HEALTH DELIVERY SYSTEMS
Description of various health care delivery systems in the U.S. and other countries. Study of the relationship of health care to social delivery system; the quality of health care; group practice; and prepayment programs.
HCA 6136/EMT 6936 EMERGENCY MEDICAL SYSTEMS SEMINAR
This course is designed to explore in a seminar-workshop environment EMS topics designed for the EMS administrator and planner. Prerequisite: HCA 5135/EMT 5008.
HCA 6201 HEALTH FINANCIAL MANAGEMENT
This course concentrates on various aspects of managerial finance in a health setting. The primary emphasis is on budgeting for operations and capital improvements; working capital management; third party reimbursement systems; and long and short term financing strategies.
HCA 6301 HOSPITAL ADMINISTRATION I - CLINICAL SERVICES
Clinical services: medical and surgical; nursing; dietary; emergency; outpatient; pathology and laboratory; special departments.
HCA 6302 HOSPITAL ADMINISTRATION II - MANAGERIAL SERVICES
Overall organization of the hospital. Organization and operation of the non-clinical services: planning; control of quality of care; business offices; personnel; financial services; and maintenance services.
HCA 6316 HEALTH LAW TRENDS
Study of the legal and legislative bases of the health care delivery system; the relationships of health care providers and consumers in various practice settings, in the various payment mechanisms, and in the lield of mental health.
HCA 6392 SPECIAL TOPICS IN HEALTH CARE MANAGEMENT
intensive study for groups of students of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty tutor, Department Chairperson, and Dean required.

## HCA 6431 PUBLIC HEALTH ADMINISTRATION

To develop an in-depth understanding of the role of the public health administrator. Discussion of the ways an administrator can function most effectively, and the ways health care managers can best relate their goals and his.
HCA 6508 MANAGEMENT IN THE HEALTH CARE FIELD
The course locuses on health organizations and human and physical resource administration. It attempts to facilitate an understanding of the managerial role in a complex and dynamic multidimensional environment. The student will be introduced to the role of modern management concepts, tools and techniques in health care administration, and to practical applications of management theory in health organizations.

## HCA 6510 MENTAL HEALTH PROGRAM MANAGEMENT

Analysis of functional areas and prolessional and administrative frameworks of mental health organizations; and of political, legal and budgetary roles and relationships, external and internal, of mental health programs and delivery systems.
HCA 6691 SEMINAR IN HEALTH MANAGEMENT
(1-10)
Consideration of selected problem areas in health management, including policy formulation, executive development, and cost-benefit analysis. Prerequisite: Consent of instructor.
HCA 6701 INDEPENDENT STUDY IN HEALTH CARE MANAGEMENT
Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Consent of laculty sponsor, Department Chairperson, and Dean.
HCA 6718 APPLICATION OF MANAGEMENT SCIENCE IN HEALTH CARE
An examination of quantitative and behavioral management tools as applied to actual cases. This course
is designed to equip the student with logical decision-making techniques to be employed in solving management problems in health care facilities. Prerequisites: HSC 4101, HSC 4201, or equivalent.

Introduction to techniques and methods of gathering and interpreting health care information. Survey and experimental statistical design, analysis and computer simulation will be covered.
HCA 6732 MASTER'S PROJECT IN HEALTH CARE MANAGEMENT
Each student is required to develop and conduct an individual research project or write a thesis on a topic of interest. The topic will be chosen in consultation with a faculty member in the School.
HCA 6811 RSIDENCY IN HEALTH MANAGEMENT
The student is assigned to a local health facility to survey and find solutions to management problems, under supervision. A formal report is required.
HCA 6850 HEALTH FACILITIES ORGANIZATION AND ADMINISTRATION
Introduction to the organization and administration of health care facilities. The course will provide opportunities to study the performance of hospitals and other health facilities, through selected field experience.

## INSURANCE

## DEFINITION OF PREFIX

RMI-Risk Management \& Insurance.

## RMI 4015 PRINCIPLES OF INSURANCE

Types of risk: methods of handling risk; analysis of insurance as a principal method; organization and operation of insurance companies; bases for decision-making in management of personal and business risks.

## RMI 4016 MANAGEMENT OF INSURANCE ENTERPRISE

Analysis of the operations of insurance organizations; underwriting; rate making; regulation; legal organization: management and control financial analysis; marketing systems. Prerequisites: RMI 4015 and consent of instructor.
RMI 4115 LIFE INSURANCE
Functions and uses of life insurance; types of policy contracts; calculation of premiums and reserves; investments; legal principles; organization, management, and supervision of companies.

## RMI 4117 PERSONAL INSURANCE PLANNING

Planning a personal program of insurance: integrating life, health and accident, property, pensions, and governmental programs.
RMI 4135 EMPLOYEE FRINGE BENEFIT PROGRAMS ability, and retirement benefits; group life and health insurance; pension and profit sharing plans; taxation and legal aspects underlying pensions; deferred and non-deferred considerations.
RMI 4145 BUSINESS AND ESTATE INSURANCE PLANNING
Applications of life and health insurance to business and estate planning situations; emphasis on current practices and developments in retirement planning, business continuation, and estate conversions.
RMI 4212 PROPERTY INSURANCEI
Basic principles of fire and allied lines insurance, including standard fire insurance contracts, declarations, agreements, conditions; and exclusions; fire insurance forms, clauses, and endorsements; special and allied fire lines; marine and other insurance.
RMI 4213 PROPERTY INSURANCE II
Multiple-line risk and risk management; the multiple-line insurance indusiry; property and liability hazards and policy contracts; functional aspects of underwriting, rate making, and claims handling.

## RMI 4220 CASUALTY INSURANCEI

A broad concept of casualty insurance, including a thorough review of basic policies; dailies; underwriting: losses: multiple line and comprehensive forms. Subjects covered include property and personal liability insurance; boiler and machinery insurance; air insurance; inland and ocean marine insurance; workmen's compensation; and surety.
RMI 4221 CASUALTY INSURANCE II
A continuation of RMI 4220, but including agency management and company administration.

## RMI 4305 RISK MANAGEMENT

Concepts and philosophies of risk management. Application of alternatives to handling risks, including risk retention; loss prevention; corporate insurance programs; self-insurance; insurance surveys and case studies

## RMI 4405 INSURANCE LAW

Legal environment and essentials of the law particularly applicable to the business of insurance. Emphasis on statutory regulation in Florida.
RMI 4500 SOCIAL INSURANCE
Introductory analysis of the rationale for social insurance; structure of current social insurance programs; evaluation of programs; old-age, survivors, health, disability, and unemployment insurance.
RMI 4732 INSURANCE UNDERWRITING AND RATING
Examinatıon of an underwriter's and rater's functions: selection of risks, classification and rating, retention and reinsurance deductions and exclusions, etc. Prerequisite: INS 405, or consent of instructor.
RMI 4910 INDEPENDENT STUDY IN INSURANCE
(1-10)
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise oflered in the curriculum. Consent of laculty supervisor and Department Chairperson required
RMI 6055 GRADUATE SURVEY OF INSURANCE
Graduate examination of current problems in insurance, including theory; uses ol insurance in business organizations; property and liability insurance; health insurance; and lite insurance.
RMI 6912 INDEPENDENT STUDY IN INSURANCE
Individual conlerences; supervised readings; reports on personal investigations. Consent of laculty tutor and Department Chairperson required.

## RMI 6936 SPECIAL TOPICS IN INSURANCE

Intensive study for groups of sludents of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of laculty supervisor and Department Chairperson required.

## BUSINESS LAW

## DEFINITION OF PREFIX

BUL-Business Law

## BUL 4111 BUSINESS LAW I

Principles of law affecting the legal environment of business; contract law; laws related to sales, torts, agencies and employment; legal relations of government and business.
BUL 4112 BUSINESS LAW II
Bailments, shipment and sale of goods; suretyship; bankruptcy; commercial paper; real and personal property; insurance; relevant provisions of the unitorm commercial code.
BUL 4661 LAW FOR ACCOUNTANTS
A survey of select topics in the legal environment in which business operates, with emphasis on the laws dealing with contracts; sales; agencies; partnerships; corporations; and other topics of direct interest to students majoring in accounting. (The course is, however, open to non-accounting students.)
BUL 4100 LEGAL ENVIRONMENT OF BUSINESS
Legal environment of business: analysis of legal principles affecting management; the role of law in business decisions; the legal tool as a system for order in the business arena; the effectiveness of the legal tool as a planning instrument. This course is a study of the importance of the impact of the law and legal institutions on the field of commerce, with attention to the regulation of competition through analysis of anlitrust legislation; the workings of administrative law; the formulation of judicial decisions; the power of constitutional provisions; and various aspects of employment legislation, as well as other select topics.
BUL 4905 INDEPENDENT STUDY IN BUSINESS LAW
(1-10)
Individual conferences; supervised readings; reports on personal investigations. Consent ol faculty tutor and Department Chairperson required.
BUL 4650 SPECIAL TOPICS IN BUSINESS LAW
Intensive study lor groups of students of a particular topic or a limited number of topics, not otherwise oflered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
BUL 6124 SURVEY OF BUSINESS LAW
Graduate level survey of business law, which examines the social purposes, functions and forms of the law and the courts, particularly as they relate to business organizations.
BUL 6906 INDEPENDENT STUDY IN BUSINESS LAW
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty futor and Department Chairperson required.
BUL 6651 SPECIAL TOPICS IN BUSINESS LAW
Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required

## MANAGEMENT

## DEFINITION OF PREFIXES

MAN-Management; QMB-Quantitative Methods in Business.

## MAN 3949 COOPERATIVE EDUCATION - MANAGEMENT I

A special program enabling management majors to work in jobs significantly related to their major area and career goals. Specific placement must be approved by the Department Chairperson and taculty advisor prior to enrollment. Prerequisite: qualification for Cooperative Education Program.

## MAN 4120 INTERGROUP RELATIONS IN ORGANIZATION

 problems experienced by subgroups in large and small organizations, with particular reference to ethnic, racial, and subcultural groups. The roles and responsibilities of management in the constructive resolution and utilization of inter-group conflict in organizations.MAN 4151 BEHAVIORAL SCIENCE IN MANA GEMENT
An analysis of selected concepts in behavioral science, their interaction and application to management. Topics include perception, motivation, and group behavior.

## MAN 4201 ORGANIZATION THEORY

A comparative analysis of various theories of organization, (including the classical, biological, economic, and Cyert-March models) and of their treatment of fundamental structure; conflict; communications;
group and individual behavior; and decision-making. Primary emphasis on developing an integrated philosophy of organization and management. Prerequisite: MAN 3010, or equivalent.
MAN 4301 PERSONNEL MANAGEMENT
Attention is locused on the theory and practice of modern personnel management as related to other management lunctions. Topics include: selection; training; job and performance evaluation; and incentive schemes. Special attention is given to human resource management and development at various organizational levels.
MAN 4320 PERSONNEL RECRUITMENT AND SELECTION
In-depth study of the personnel staffing function. Includes an analysis of objectives, techniques, and procedures for lorecasting manpower needs, recruiting candidates, and selecting employees.
MAN 4322 PERSONNEL INFORMATION SYSTEMS
A survey of personnel reporting requirements; assessment of information needs; manpower planning; and development of integrated personnel systems. Prerequisites: CIS 3000 and MAN 4301.

## MAN 4330 WAGE AND SALARY ADMINISTRATION

Presents the theories and techniques used by management in the areas of work measurement, wage incentives and job evaluation.

## MAN 4401 INDUSTRIAL RELATIONS

Organizational and economic analysis of the problems and issues arising out of legislative and judicial efforts to define the rights, duties and responsibilities of labor organizations and management in the field of labor relations.
MAN 4410 LABOR, MANAGEMENT AND COLLECTIVE BARGAINING
The various options for settlement of labor-management disputes. Evaluation of the nature, institutions and processes of collective bargaining; the analysis of labor-management issues and their significance; and the character and procedures of arbitration, mediation, fact-finding, and conciliation. The course deals also with the analysis of the labor market.
MAN 4521 OPERATIONS PLANNING AND CONTROL
Concepts in design, analysis, and control of operating systems, plant layout and design, materials handling, quality control, forecasting, and decision theory, applied to production and service systems. Prerequisites: MAN 3503, QMB 3150.

## MAN 4523 PRODUCTION INFORMATION SYSTEMS

A study of the special problems associated with the development of information systems capable of supporting the production function of an organization. Review of information systems approaches to inventory control and work processing management.

## MAN 4600 INTERNATIONAL MANAGEMENT

Introductory survey of management issues that confront the multinational enterprise. At least one class session is devoted to each of the following topics: review of basic trade theory; tariffs and trade barriers; organizational transfer; foreign exchange; institutions affecting the multinational manager (such as IMF, IDB, Ex-In Bank, EEC, IBRD), international financial management; issues in multinational accounting; personnel management; comparative business customs and behavioral issues; export-import procedures; conflicts with national interests.
MAN 4610 INTERNATIONAL AND COMPARATIVE INDUSTRIAL RELATIONS
Examines selected industrial relations systems of Western Europe, Asia and the Americas, with speical emphasis on differences among systems and the reasons such differences exist. The industrial relations significance of the multinational enterprise, and management problems associated with operations in diverse systems, are analyzed.

## MAN 4771 SMALL BUSINESS MANAGEMENT

The organization and operation of the small business: accounting, finance, production and marketing subsystems. The use of analytical approach. Problems of manpower management and information flow. Possible use of EDP, case studies.

## MAN 4781 WOMEN IN MANAGEMENT OF BUSINESS ORGANIZATIONS

This course is intended for students interested in the present and future status of female managers. It will locus on the history of women in professions; the socio-economic status of women in business; educational factors, sex roles and the informal organization; relevant legal requirements; the development of managerial climates for effective performance; and strategies for changing organizations.
MAN 4810 MANAGEMENT SCIENCE
Survey ol management science operations research from an applied point of view. Emphasis on the formulation of models of business problems such as allocations; inventories; project management; replacement; transportation; scheduling sequencing; queuing theory; and competition. Prerequisite: QMB 3150, or equivalent.

## MAN 4819 SYSTEMS ANALYSIS AND DESIGN

Topics include: information systems concepts; the structure, design, and development of the data base; and techniques and procedures used in the analysis and design of systems projects. Prerequisite: CIS 3000.

## MAN 4820 INFORMATION SYSTEMS DEVELOPMENT

Advanced topics in the analysis and design of computer-based management information systems. Includes feasibility studies; systems analysis; design; implementation; operation; and the interlacing of a computer-based system within the organization. Cases and lield studies will be used as a basis for course projects.
MAN 4830 DILEMMAS OF RESPONSIBILITY IN BUSINESS MANAGEMENT
The use ol interdisciplinary concepts and tools to define and understand the moral and ethical dilemmas involved in business and corporate spheres of activity. Specifically attended to are issues such as pollution, consumer altars, and quality of public facilities.

Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required. CR/NC only
MAN 4930 SPECIAL TOPICS
For students who wish an intensive study of a particular lopic or a limited number of topics not otherwise olfered in the curriculum. Consent of faculty supervisor and Department Chairperson required Grade option.
MAN 4949 COOPERATIVE EDUCATION - MANAGEMENT II
Continuation of MAN 3949. Prerequisites: MAN 3949, and qualification for Cooperative Education Program.
MAN 5123 HUMAN INTERACTION I: PERSONAL GROWTH LABORATORY
Experience designed to increase awareness of personal social impact, and sensitivity to the feelings of others; to improve interpersonal communication, and increase understanding of the change-learning process. Study and analysis of class-group participation as well as other functional social groups.
MAN 5415 PUBLIC SECTOR COLLECTIVE BARGAINING
Examination of the labor force; labor markets; public manpower policy; and organizational manpower planning. Discussion of recent developments in public and organizational policy.
MAN 5830 PLANNING FOR INFORMATION SYSTEMS
An in-depth study of systems concepts as they apply to information systems in organizations. Consideration of planning for and accomplishment of systems development through the phases of the life cycle and of the overall management of the information systems function. Enrollment limited to students in the MIS Certificate Program.
MAN 5831 ANALYSIS OF INFORMATION REQUIREMENTS
An in-depth study of the problems of determining effective information needs for systems users. Consideration of the development of data element dictionary capability; procedures for eliciting requirement and report content. Enrollment limited to students in the MIS Certificate Program.
MAN 5832 DESIGN OF INFORMATION SYSTEMS
An in-depth study of the problem of determining an efficient information system design to meet the requirements specified by the user. Consideration of the determination of alternative designs, selection of the "best" design, and conversion of the design into programming specifications. Enrollment limited to students in the MIS Certificate Program.
MAN 5930 SEMINAR IN PERSONNEL MANAGEMENT
Overview and examination of the various aspects of the personnel management function. Course is only open to students enrolled in the Personnel Management Certificate Program.

MAN 6112 GROUP PROCESSES IN ORGANIZATIONS
The social and psychological processes of organizational functioning. The roles played by small groups in organizational settings.
MAN 6121 INTERPERSONAL BEHAVIOR AND ANALYSIS
A human interaction-human relations training laboratory, designed to increase both self-awareness and understanding of behavioral dynamics in groups. Course is intended to enable students to broaden their conceptual understanding of human interpersonal communications and conflict. Enrollment is limited to fifteen students per section.
MAN 6124 HUMAN INTERACTION II ORGANIZATIONAL CONSULTATION
Theories and approaches to organization development and change, with a particular focus on public schools and organizations. Supervised laboratory on systematic consultation and action skills, including method of assessment (survey feedback, milling, confrontation meetings, systems analysis); agendasetting; feedbacks; coaching; third-party consultation for conflict management; and team training. Prerequisite: MAN 5123.

A critical examination of the role and impact of interpersonal and intergroup conflict in organizations. Models and approaches to utilizing and resolving conflict toward constructive personal and organization ends will be emphasized.
MAN 6311 ADVANCED PERSONNEL MANAGEMENT
Attention is focused on the theory and practice of modern personnel management, as related to other management functions. Topics include selection; training; job and performance evaluation; and incentive schemes. Special attention is given to human resources management and development at various organizational levels.
MAN 6321 PERSONNEL SELECTION AND PLACEMENT
Individual differences and their measurement in personnel selection and job placement. Job design and redesign. The learning process. Counseling and career guidance.
MAN 6331 COMPENSATION ADMINISTRATION
An in-depth analysis of wages and salary administration, including such topics as job evaluation; wage incentive systems; and work sampling.
MAN 6351 PERSONNEL TRAINING AND DEVELOPMENT
Determining training needs. Training methods. The training staft. Supervisor development. Equal Employment Opportunity management.

Survey of industrial relations law, with special emphasis on the current status of union-management relations law. Covers the scope and content of current legislation; selected topics in applied labor relations law; and the role of government.

## MAN 6405 LABOR RELATIONS

Examines the collective bargaining system in the United States from the viewpoint of the practitioner. Various aspects of the environment, structure, processes, issues and impact of collective bargaining are considered. Special attention is given to the negotiation and administration of agreements.
MAN 6411 COLLECTIVE BARGAINING TOPICS
An advanced course in labor relations, for students with some background who desire more depth than that provided in introductory courses. Topics of contemporary interest, such as public sector collective negotiations, are treated at length.
MAN 6529 SEMINAR IN PRODUCTION CONTROL SYSTEMS
The design of control systems for production operations automation, and its impact on organizations. Integrated operational - simulation approach. Group and individual projects.
MAN 6601 INTERNATIONAL MANAGEMENT
Gduate seminar locusing on management issues confronting the multinational enterprise. Includes basic trade theory; tarifls and trade barriers; organizational transier; foreign exchange; international financial management: export-import procedures; comparative business customs; personnel management; and instifutions affecting the multinational manager.
MAN 6603 PROBLEMS IN COMPARATIVE MANAGEMENT
Discussion of literature, readings, and cases, aimed at underscoring the differences and similarities in management behavior in different countries and cultures. General instruction in obtaining and utilizing comparative data on management differences.
MAN 6604 COMPARATIVE MANAGEMENT ANALYSIS
Development and testing of hypotheses concerning differences and similarities in managerial behavior in different countries and cultures; discussion of implications; case analyses.
MAN 6715 POLITICS IN ORGANIZATIONS
The objective of this course is to give the student experience in an executive role in a contemporary organization. The stress is on human interaction; decision-making under pressure; and organizational politics.
MAN 6819 SURVEY OF MANAGEMENT SCIENCE
An introductory course that will examine model building, and the methodology, techniques and tools of management science. A survey of available analytic models will be included.
MAN 6833 INFORMATION SYSTEMS PLANNING
An in-depth study of systems concepts, as they apply to information systems in organizations. Consideration of planning for systems development and its accomplishment through the phases of the life cycle, and of the overall management of the information systems function.
MAN 6834 INFORMATION REQUIREMENTS ANALYSIS
An in-depth study of the problem of determining effective information needs for systems users. Consideration of the development of data element dictionary capability; procedures for eliciting requirements; and techniques for documenting requirements and report content.
MAN 6835 INFORMATION SYSTEMS DESIGN
An in-depth study of the problem of determining an efficient design to meet the requirements specified by the user. Consideration of the determination of alternative designs, selection of the "best" design, and conversion of the design into programming specifications.
MAN 6836 SYSTEMS ANALYSIS
A study of the systems approach to problem solving as it applies to any area of specialization. Consideration of the problems in determining system objectives; identifying system boundaries and constraints; marshalling resources for achieving system objectives; analyzing the subcomponents of the system and their respective objectives; and managing the system.
MAN 6895 SEMINAR IN MANAGEMENT SCIENCE
New topics and new application areas will be explored. Lectures will relate to the latest advances in the theory and application of management science.
MAN 6905 INDEPENDENT STUDY IN MANAGEMENT
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty sponsor and Department Chairman required. CR/NC only.
MAN 6910 RESEARCH METHODS IN MANAGEMENT
Covers the research methods and analytical techniques most widely used in research in human resources and general management. Emphasis is on helping students to become more aware of current techniques and their applications.
MAN 6930 MASTER'S SEMINARIN MANAGEMENT
An examination of recent research findings in selected areas of current concern. Emphasis is placed on readings: active discussion; and small, short-term action and research projects. The student may make a preliminary selection of his/her master's thesis or project topic
MAN 6930 MASTER'S PROJECT IN MANAGEMENT
Each student is required to develop and conduct an individual research project or thesis on a topic of interest. The topic will be chosen in consultation with a laculty member in the School.

## MAN 6930 SPECIAL TOPICS IN MANAGEMENT

For groups of students desiring intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of laculty tutor and Department Chairperson required. Grade option.
QMB 4680 SIMULATION OF MANAGEMENT SYSTEMS
Exploration ol basic concepts in computer simulation of systems. Application of these concepts to a variely of managerial problems. Discussion of waiting line models; continuous simulation models;
heuristic methods: and management games. Presentation of several computer programs and languages tor simulation. Exposure to the operation and analysis ol some simulation models. Prerequisites: OMB 3150 , CIS 3000.
QMB 4700 PRINCIPLES OF OPERATIONS RESEARCH I
Application ol deterministic operations research models (such as linear and nonlinear programming, networks (CPM), dynamic programming, and branch and bound techniques) to managerial problems of allocation; planning and scheduling investment: control prescheduling. Prerequisite: MAN 4720.

## QMB 6805 DETERMINISTIC MODELS FOR MANAGEMENT ANALYSIS

Applicatıons of deterministic models (such as linear and nonlinear programming, network analysis (PERT), dynamic programming, and branch and bound algorithms) to managerial problems of allocation, planning, scheduling, investment, and control.
QMB 6845 SIMULATION OF MANAGEMENT SYSTEMS
Basic concepts of computer simulation of systems; application of these concepts to a variety of managerial problems. Industrial dynamics, urban dynamics, and large system simulation. Simulation in economic analysis. Heuristic methods. Managemenl games.
QMB 6855 S OCHASTIC MODELS FOR MANAGEMENT ANALYSIS
Applications of probabilistic models (such as queuing, inventory, and renewal) to their managerial problems.
QMB 6875 STOCHASTIC MODELS FOR PROJECT MANAGEMENT
Review ol deterministic models and principles. Introduction to GERT, critical path methods, criticality index, and resource considerations in stochastic networks. Emphasis on operational decision-making, advanced topics, and individual projects. Students use the computer, and existing programs, to analyze/simulate hypothetical project networks, and learn to interpret the results in order to facilitate operational decisions.

## MASTER OF BUSINESS ADMINISTRATION PROGRAM

## DEFINITION OF PREFIXES

ACC-Accounting; ECP-Economic Problems \& Policy; FIN-Finance; MAN-Management; MAR-Marketing; QMB—Quantitative Methods in Business.

ACC 6011 FINANCIAL ACCOUNTING ANALYSIS
A survey of the principles and procedures of accounting. The course covers both financial and management accounting. The principal emphasis is on the potential uses, as well as limitations, of accounting information. (No credit will be given to students who have had undergraduate or graduate equivalents.)
ACC 6313 ACCOUNTING FOR DECISION MAKING
A survey of the various uses of accounting information, both from the point of view of management and the investor. The course covers advanced topics in financial accounting, and the techniques utilized in financial analysis. It also emphasizes the differences among alternative accounting principles, and their effects on decision-making. Prerequisite: ACC 6011, or equivalent.
ECP 6704 MANAGERIAL ECONOMICS
The application of microeconomic and macroeconomic concepts to decision making within the organization; supply and demand, market structure and market behavior in specific industries; basic aggregate economic models; and forecasting. Prerequisite: QMB 6603, or equivalent.

## FIN 6428 FINANCIAL MANAGEMENT

In-depth examination of asset, liability and capital structure management, with emphasis on capital budgeting techniques; risk evaluation; working capital management; and methods of short term, intermediate, and long term financing. Prerequisite: ACC 6011, or equivalent.

## MAN 6205 ORGANIZATIONAL ANALYSIS

Study of concepts, theories, research, and operational problems of management. Emphasis on analyzing the management processes of planning, organizing, leading, and controlling; and their relationship to technology, environment, and the nature of the task.
MAN 6501 OPERATIONS MANAGEMENT
This course covers the analysis of design and operations in organizational systems. The systems approach is used to provide a framework or general model of analysis, to which specific concepts, quantitative techniques, and tools can be related. The material presented has application to any organization of people and machines, including hospitals, governmental agencies, service organizations, and industrial concerns. Prerequisite: OMB 6603, or equivalent.

## MAN 6713 WORLD DYNAMICS AND THE ORGANIZATION

## MAN 6721 MANAGERIAL DECISION-MAKING

This course will investigate and analyze the decision-making problems that managers face in business, volunteer organizations, government, and the public sector. Emphasis will be placed on providing a variety of decision-making experiences for the student. Prerequisite: QMB 6603, or equivalent.

## MAN 6722 POLICY ANALYSIS

The use of cases, guest lectures, and gaming to integrate the analysis and measurement tools, the functional areas and public policy issued. The objective is to develop skill in broad areas of rational decision-making in an administrative context of uncertainty. Should be taken in the last quarter of master's program.

A comparative analysis of particular public and private organizations in specific cultures and their interaction with other institutions, with particular attention to environmental and institutional constraints on the organization, and the contrast of the goals of the organization with mores of the society.

## MAN 6830 ORGANIZATION INFORMATION SYSTEMS

Introduction to information systems and their role in organizations from a user's viewpoint. Survey and application of the basic concepts necessary for understanding information systems. Study of the main activities in the development cycle used to acquire information systems capability. Prerequisite: MAN 6205.

## MAN 6974 MASTER'S PROJECT

An individualized research project and report, which may include: field experience with a firm or agency; library research; computer programming; or project development. Course may only be taken with the approval of faculty adviser, Department Chairperson, and Dean.

## MAR 6716 MARKETING MANAGEMENT

A study of analysis and application of theory and problem solving in marketing management. Emphasis will be on the role of marketing in the organization; planning the marketing effort; management of the marketing organization; control of marketing operations; and evaluation of the marketing contribution.

## QMB 6603 QUANTITATIVE METHODS IN MANAGEMENT

Introduction to basic quantitative tools for the analysis of problems arising in the management of organizations, and the application of these tools to real-life problems. (No credit will be given to students who have had undergraduate or graduate equivalents.)

## MARKETING

## DEFINITION OF PREFIXES

MAR-Marketing; MKA-Marketing Applications.

## MAR 4054 MARKETING FOR NON-PROFIT ORGANIZATIONS

Marketing techniques as applied to non-profit organizations, including (but not limited to) the marketing of such governmental programs as housing, educational, health services, transportation, and Social Security.

## MAR 4103 PERSONAL SELLING

The development of effective salesmen/customer relationships is emphasized. Selection, training, and motivation of the sales force, and the relationship between personal selling and the other elements of marketing strategy are analyzed.

## MAR 4153 RETAILING MANAGEMENT

An examination of the role of retailing in the marketing system. Attention is concentrated on fundamentals for successful retail management. The course emphasizes basic marketing principles and procedures, including merchandising; markup-markdown; pricing; stock-iurn; and sales and stock planning.

## MAR 4154 CASES IN RETAILING MANAGEMENT

This course treats the retail marketing concentration in terms of up-to-date merchandise management methods. Emphasis is on elements of profit, open-to-buy planning, return on investment, and inventory control. The course delineates the decisions made by retailing managements and reviews their available strategies. Prerequisite: MAR 4153, or consent of instructor.
MAR 4203 MARKETING CHANNELS
The course focuses upon institutions, functions, and flows within channels of distribution; and their integration into channels systems. Wholesaling and physicial activity are emphasized. Same course as TRA 4203.

MAR 4213 TRANSPORTATION LOGISTICS
(Same course as TRA 4012). Consideration of transportation logistics and its relationship to production and distribution. Study of the characteristics, management, legislation, and public regulation of various modes of transportation.
MAR 4243 INTERNATIONAL MARKETING
The course studies the information required by marketing managers to assist in satisfying the needs of consumers internationally. Special emphasis will be given to the constraints of the international environment.

## MAR 4244 EXPORT MARKETING

This course emphasizes practical approaches to export marketing, including marketing strategies by individual lirms to serve foreign markets. Operational methods of identifying, establishing, and consolidating export markets are discussed, with particular attention to the needs of the smaller business.
MAR 4303 ADVERTISING MANAGEMENT
The study of advertising in business and society, providing a broad understanding of advertising's social, communicative, and economic purposes. An examination of the types and functions of advertising. Discussion of research, media selection, budget determination, and other elements in the total advertising process.
MAR 4343 PROMOTIONAL STRATEGY
The course deals with problems of decision-making in the areas of marketing communication methods, with primary emphasis on advertising.

## MAR 4344 ADVERTISING CAMPAIGN MANAGEMENT

Strategic approaches to managing advertising campaigns, including selection of approaches; market research; consumer target markets; media; advertisements; development and control of budgets. Prerequisite: MAR 4303, or consent of instructor.

## MAR 4453 INDUSTRIAL MARKETING

Marketing in the intermediate consumer environment. Consideration of problems met, and strategies for marketing goods and services to commercial, industrial and governmental markets.

MAR 4503 CONSUMER BEHAVIOR
The course olfers an introduction to the analysis of the consumer, as the basis lor the development of the marketing mix.
MAR 4613 MARKETING RESEARCH
An examination of the marketing research process and its role in aiding decision-making. Emphasis is placed on evaluation and utilization of research information in making marketing decisions.
MAR 4703 CURRENT ISSUES IN MARKETING I
Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 5 credit hours ol independent study in marketing.
MAR 4704 CURRENT ISSUES IN MARKETING ॥
Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 4703.

MAR 4713 CASES IN MARKETING MANAGEMENT
An analytic approach to the performance to marketing management. The elements of marketing mix as the locus of decision-making in marketing are studied, and the case method of instruction is employed.
MAR 4723 MARKETING OF SMALL BUSINESS ENTERPRISES
Designed to develop an understanding of the principles and practices which contribute to the successful marketing operation of a small business enterprise, this course deals with marketing policies, techniques, and applications, to aid the entrepreneur in this field.

## MAR 4733 MARKETING AND THE LAW

A policy and operational analysis of legislative acts and judicial interpretations of laws influencing organizations engaged in marketing activities
MAR 4753 MARKETING GAME COMPETITION
Focal point of the course is a computerized marketing management simulation. The course provides an opportunity for the student to participate, as a member of the marketing management team of a firm in competition with other lirms.
MAR 4773 REAL ESTATE MARKETING
(Same course as REE 4800). The course focuses on applications of marketing concepts and tools within the real estate industry.
MAR 4907 INDEPENDENT STUDY IN MARKETING
(1-10)
Individual conferences; supervised reading; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
MAR 4933 SPECIAL TOPICS IN MARKETING
For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise oflered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
MAR 5913 INDEPENDENT STUDY IN MARKETING
(1-10)
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
MAR 5935 SPECIAL TOPICS IN MARKETING
For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

## MAR 6246 ADVANCED INTERNATIONAL MARKETING

This course discusses the nature and scope of international marketing, and explores multinational problems facing lirms and other international marketing organizations, together with strategies for foreign market penetration.
MAR 6346 ADVANCED PROMOTIONAL STRATEGY
The course focuses on planning, problem-solving, and decision-making, as they apply to promotion programs. Primary emphasis is on advertising, with discussion of the role of promotion in relation to other elements of the marketing program.
MAR 6506 ADVANCED CONSUMER BEHAVIOR
Modern comprehensive models of consumer behavior are utilized as a framework for understanding consumer decision processes.
MAR 6606 QUANTITATIVE METHODS IN MARKETING
A study of the quantitative reasoning process and its usefulness for marketing decision-making. Each of the major decision areas in marketing is examined, using existing quantitative models as aids to understanding marketing processes.

## MAR 6617 ADVANCED MARKETING RESEARCH

The role of research in providing information for marketing decision-making, including an examination of the research process and the tools available to the researcher.
MAR 6706 CURRENT ISSUES IN MARKETING I
Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 5 credit hours 01 independent study in marketing.
MAR 6707 CURRENT ISSUES IN MARKETING II
Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 6706.

Course emphasis is on application and integration of concepts and tools, through participation in the marketing management of a lirm in competition with other firms. The course's focal point is a computerized marketing management simulation.

## MAR 6915 INDEPENDENT STUDY IN MARKETING

Individual conferences; supervised reading; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
MAR 6936 SPECIAL TOPICS IN MARKETING
(1-10)
For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise oflered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
MAR 6971 MASTER'S PROJECT
An individualized research project and report, which may include lield experience with a firm or agency, library research, computer programming, or project development. Permission of the faculty advisor is required belore registering for the course. The course should be taken during the last half of the student's graduate program.
MKA 4392 MARKETING INTERNSHIP
(1-10)
Full-time supervised work in a selected organization. Prerequisites: At least twenty hours in marketing; consent of instructor and Department Chairperson.

## MKA 4949 COOPERATIVE EDUCATION IN MARKETING

Open to marketing majors who have been admitted to the Cooperative Education Program, with consent of Chairperson. Full time supervised work with a participating organization in marketing. Report to the organization and a paper to the Chairperson are required.

## PUBLIC ADMINISTRATION

DEFINITION OF PREFIXES
CIS-Computer and Information Systems; MAN-Management; PAD-Public Administration; PUP-Public Policy; QMB—Quantitalive Methods in Business.
CIS 6204/MAN 6830 MANAGEMENT INFORMATION SYSTEMS
introduction to the application of computers to information processing problems in organizations. This includes a survey of the basic computer hardware and software concepts necessary for users to work with information processing personnel. The rudiments of a computer programming language will be taught, and applied to data processing problems. Consideration will also be given to the managerial aspects of information systems planning and development.
PAD 3033 ADMINISTRATORS AND THE LEGISLATIVE PROCESS
A study of executive-legislative interactions; the impact of legislation and legislative processes on administrative policy decision-making and implementation; the influence of administration on the legislating process.
PAD 3034 PUBLIC POLICY AND ITS ADMINISTRATION
Contemporary theories of policy analysis. The role of social, political, and cultural theories as they apply to the analysis and administration of public policies.
PAD 3204 FINANCING PUBLIC ORGANIZATIONS
Financial management in public organizations. The securing of funds through taxes and bond issues. The management of funds, and expenditure decisions.
PAD 3413 ORGANIZATIONAL GROUP PROCESSES
The impact of various organizational climates, tasks, roles and reward systems, on the behavior of both the individuals and groups of employees in public organizations. Particular attention is given to alienation and motivation in job effectiveness and Public Service.
PAD 3430 PERSONAL GROWTH AND ADMINISTRATIVE DEVELOPMENT
The administrator as a person. Development of interpersonal skills. Self evaluation and career planning. Training and education for the public service sector.

## PAD 3702 ADMINISTRATIVE STATISTICS AND DATA SYSTEMS

Quantitative techniques useful to public administration, non-parametric technqiues, probability concepts, and decision techniques are presented; as well as concepls underlying the use of data systems.
PAD 3834 INTERNATIONAL COMPARATIVE ADMINISTRATION
This course is an introduction to a wide range of scholarly and practical ("applied") interests. Emphasis is on institution-building and development administration, particularly within the Third World countries.
PAD 4024 CONCEPTS AND ISSUES IN PUBLIC ADMINISTRATION
The lunction of administrative institutions in sociely. The growth of administration through the bureaucratic model both as an art and a science. Contemporary and comparative forms and theories of organization. Responsibilities of public servants.
PAD 4032 PUBLIC CHOICE
Some historical analysis of the origin and concept of the public interest in public administration. The various lormulations of public administration as a concept, and contemporary interpretations of same. Specific role definitions and concepts of the public interest and public policy.

## PAD 4040 PUBLIC VALUES, ETHICS AND MORALITY IN CHANGING ENVIRONMENT

Theories of value; ethical systems and their influence on administration, behavior and process; the administrator as an ethical actor; value conflict and resolution; the philosophical basis of American thought.
organizational politics which are unique to public organizations. Effects of these political processes upon organizational perlormance and their role in promoting or thwarting organizational change.
PAD 4104 ORGANIZATION AND ADMINISTRATIVE THEORY
History and development of administrative theory: survey of earlier theories of public organization, and of contemporary and emerging theories. Special attention to the role of bureaucratic theory. Case investigation of manifested influence of the bureaucratic model in its various forms at lederal, state and local government levels.
PAD 4110 ADMINISTRATIVE INTERACTION IN THE PUBLIC SECTOR
Delinition and analysis of administrative interlaces with multiple and varied public and private organizations. A study of the role expectation, pressures and opportunities of the administrator in a complex environment.
PAD 4223 BUDGETS AND THE ADMINISTRATIVE PROCESS
The theory and practice of various approaches to budgeting, incl. time-item, performance, program and PPBS budgeting. Special emphasis on the role of the budget in shaping the performance and policy direction of public organizations.
PAD 4414 PUBLIC PERSONNEL ADMINISTRATION
The general nature of public personnel administration; the development of the civil service system; concepts and issues currently applicable at the federal, state and local levels of government.
PAD 4415 ADMINISTRATION OF PERSONNEL RESOURCES
Problems of training in government service and management of human resources development; the concept of civil service career systems; evaluation of public personnel systems; human relations in supervision; and personnel theory are examined.
PAD 4432 ADMINISTRATIVE LEADERSHIP AND BEHAVIOR
Designed to expose students to a systematically related set of concepts for diagnosing human behavior in organizations; and to establish a positive value for the analysis of problems involving people, structure, environment, task technology, and situational climate.
PAD 4603 ADMINISTRATIVE LAW
Surveys the principles of law from the perspective of the public administrator; administrative procedure; procedural due process; delegation of legislative power; regulatory administration; conflict-of-interest statutes, etc.
PAD 4804 GOVERNMENT AND ADMINISTRATION OF METROPOLITAN AREAS
An intensive analysis of administrative problems created by large complex urban areas comprising many political entities. Examines overlapping relationships within municipalities, problems in the Dade County system, current trends, and suggested solutions.
PAD 4905 INDEPENDENT STUDY IN PUBLIC ADMINISTRATION (1-10)
Individual conferences; supervised readings; reports on personal investigations; and similar undertakings. Prerequisite: Consent of faculty sponsor and Department Chairperson required.
PAD 5041 VALUES AND TECHNOLOGY IN MODERN SOCIETY
Surveys personal and societal value assumptions in the context of the technological society. Examines organizational-societal value structures, and the ways in which technology creates rapid change and new alternatives in values. Also interrelationship of the past, present and future is explored, through futurism and forecasting techniques.
PAD 5427 COLLECTIVE BARGAINING IN THE PUBLIC SECTOR
The course deals with the nature and implications of collective bargaining for managers and employees in (and students of) public organizations. The course emphasizes similarities and differences between the private and public sectors, as they apply to collective bargaining.
PAD 5435 ADMINISTRATOR AND THE ROLE OF WOMEN
The course is designed for women and men who are interested in moving into management positions, or who have done so and want to broaden their understanding of the changing role of women. Classes will allow for experimental as well as academic exploration of the issues. The course will also explore design, implementation, and evaluation of affirmative action programs.
PAD 5443 THE PUBLIC ADMINISTRATOR AND MEDIA RELATIONS
Surveys the government-mass communication media relationship, and then concentrates on the ways in which public managers handle media relations. Emphasis throughout is placed on questions of information-handling unique to public organizations, involving, for example, adherence to Florida's Sunshine Law and the Federal Freedom of Information Act.
PAD 6035 PUBLIC INTEREST AND THE PUBLIC TRUST
Analysis of the meaning of the public interest, using both experimental and cognitive tools. The purpose is to allow individuals in the course to clarify their current definitions of the concept, and to be exposed to alternative points of view. The course is intended for everyone in the public sector, and all those who have the term "public" in their repertoire of justifications.
PAD 6042 DEMOCRACY AND THE ADMINISTRATIVE STATE
Juxtaposes the contemporary administrative condition of American government with the values of the democratic state. Different approaches to democracy - in practice as well as in theory - will be analyzed, and their implications for public organizations and individual administrators examined.
PAD 6043 GOVERNMENT AND MINORITY GROUP RELATIONS
Explores the pressing contemporary issue of the relationship between government and minorities. Examines the clash between established institutional values and minority group values, and surveys remedial programs aimed at dealing with the problem. Comparative case studies will be used to analyze public agencies' internal relations with minorities (recruiting, selection, etc.), as well as their different responses to the minority groups they serve. organizations and their multifaceted environment. Emphasis is on examining relevant social and cultural mores and patterns, political values and processes, governmental institutions, economic systems, resource availability, and other environmental factors currently significant to public organizations.
PAD 6106 ORGANIZATION THEORY AND ADMINISTRATIVE BEHAVIOR
Historical perspective and philosophical foundations of contemporary and emerging organization theory and administrative behavior, with emphasis on concepts of administrative leadership, the organization's members and systems, group dynamics, socio-psychological aspects of organization and management.
PAD 6109 ORGANIZATIONAL DEVELOPMENT AND CHANGE
Contemporary approaches to improving the overall effectiveness of public organizations through the utilization of the applied behavioral sciences: personal and executive development programs, team building, action research, etc. Survey of research on the effects of organizational development programs, with special relerence to public organizations.
PAD 6227 PUBLIC FINANCE AND THE BUDGETARY PROCESS
Examines the theory and practice of public budgeting and its relationship to the administrative processes of control, management and planning. Special emphasis will be given to the social balance question; the kinds and scope of government expenditures; the fiscal role of government in a mixed economy; sources of revenue available to government; administrative, political and institutional aspects of the budget and the budgetary process; and problems and trends in intergovernmental financial relations.

## PAD 6417 PUBLIC PERSONNEL ADMINISTRATION

This course locuses on the fundamentals of public personnel administration applied to general and specific issues of civil service. Some of the specific issues which will be considered are: the merit system and civil service history and development; manpower development and training; the application of the behavioral approach in personnel administration; unqiue public personnel management problems; governmental unionization and collective bargaining; and future perspectives in personnel administration.

## PAD 6437 DYNAMICS OF INDIVIDUAL GROWTH

This course focuses on the importance of small group theory to the personal growth of the administrator, and the role of interpersonal abilities in effectively serving client groups. The course also deals with the expansion of the phenomenological world view of each student; and will look at existential theory and the dilemma of personal growth.
PAD 6605 ADMINISTRATIVE LAW AND PROCEDURES
Emphasizes the responsibilities public administrators have under local, state, and federal laws. Explores such concepts as client responsiveness under the law; the regulatory process; state administrative law systems; the executive order process; the relationship between administrative law and the checks-andbalance system; discretionary justice; and others.
PAD 6706 RESEARCH METHODS IN COMPLEX PUBLIC ORGANIZATIONS
Theories and concepts of research and evaluation. Specific focus given to action components of the research process: design and formulation, strategies and methodological tools for conducting research. Discussion of the role of research in administrative decisions and in testing ways to implement public policy. A review of contemporary critiques on research design.

## PAD 6807 URBAN AND MUNICIPAL GOVERNMENT ADMINISTRATION

Detailed examination of problems lacing the municipal administrator; of the pressures upon the contemporary urban environment; and of the administration of large metropolitan areas comprised of numerous entities. Emphasis will be on determination of current trends, discussion of cases, and arrival at suggested solutions.
PAD 6816 REGIONAL AND STATE GOVERNMENT ADMINISTRATION
Surveys the historical development of regional administration, analyzes present administrative problems of the states, and explores contemporary and suggested remedial policies. Emphasizes the complex problems of the institutional relationships among local, state and regional governments, and their implications for public policy-making.

## PAD 6836 INTERNATIONAL PUBLIC ADMINISTRATION

The role of public administration systems around the world; and the impact of political and socio-cultural Irameworks on administration. Focus on national and state organizations' politics, economics, problems, and possibilities. A review of scope and programs of contemporary international public administration organizations.
PAD 6838 DEVELOPMENT ADMINISTRATION
The role of public administration in national development, with specific attention to theories of economic aid from external sources, and the effects of this aid. Theories and policies of economic and social development are explored; and particular attention is given to the role of the United States in strengthening administrative capabilities as an important means for achieving developmental goals in selected countries
PAD 6907 INDEPENDENT STUDY IN PUBLIC ADMINISTRATION
Individual conferences; supervised readings; reports on personal investigations and similar undertakings. Consent of faculty sponsor and Department Chairperson required.

An individualized research project and report which, if feasible, should include field work with a public organization. Permission of a faculty advisor is required before registering for the course, which should be taken during the last half of the student's graduate program.

Supervised work in a public or quasi-public organization. Should not be undertaken until completion of
required courses in public administration program. Consent of faculty advisor and Department Chairperson required.
PUP 6005 PUBLIC POLICY
An intensive analysis of the normative theories of public policy making, with emphasis on the processes by which policy choices are made and implemented by government agencies. The current trends and perspectives of effective policy development (such as participatory democracy, multi-valued choice, rationality versus extrarationality, policy environments, and policy roles of proactive public administration) are examined.
PUP 6006 PUBLIC POLICY ANALYSIS AND EVALUATION
A lramework lor evaluating public policy-making will be presented. The emphasis will be on criteria and methodologies available for choosing among alternative courses of action. The systems approach, alternative futures, and nth-order consequences of policies will be analyzed.
QMB 6603QUANTITATIVE METHODS AND COMPUTER SKILLS
Introduction to basic quantitative tools for the analysis of problems arising in the management of organizations, and the application of these tools to real-life problems. (No credit will be given to students who have had undergraduate or graduate equivalents.)

## PUBLIC RELATIONS

## DEFINITION OF PREFIX

PUR-Public Relations.

## PUR 4000 THEORY AND PRINCIPLES OF PUBLIC RELATIONS

A course suitable for sludents of management in all areas. Includes a basic introduction to the theory, history, practice, and future of public relations: a comprehensive study of the field.

## PUR 4800 PLANNING AND IMPLEMENTATION OF PUBLIC RELATIONS CAMPAIGNS

An advanced course in application of theory to actual implementation of public relations activities. Will include practice in preparation of ghost written speeches and press kits; handling of special evenis; and complete production on a team basis of a multimedia public relations presentation. Prerequisite: PUR 4000, or consent of instructor.
PUR 4934 PUBLIC RELATIONS SEMINAR
Open to public relations emphasis students only. A course designed to allow the advanced public relations student to pursue a specially selected, specific area of public relations (i.e., political, medical, financial, governmental, corporate, educational, etc.) through in-depth study under a tutorial style of instruction and guidance. Prerequisites: PUR 4000 and PUR 4800, or consent of instructor.

## REAL ESTATE AND URBAN DEVELOPMENT

## DEFINITION OF PREFIXES

REE—Real Estate; URP—Urban and Regional Planning; URS—Urban and Regional Studies.
DHE 5434 URBAN DEMOGRAPHY
Detailed analysis of demographic methods applied to the urban environment.
GEO 5605 URBAN GEOGRAPHY
Geographical approach to city systems; consideration of the contribution of geographers to urban analysis; field project.
REE 3040 INTRODUCTION TO REAL ESTATE
Decision making processes for development, financing, marketing, and management of real estate space. Economics of regional development and urbanization. Public policy issues concerning urban environment and the real estate business. Prerequisite to all other courses in real estate and regional development
REE 3430 LEGAL ENVIRONMENT OF REAL ESTATE
Legal environment of real property ownership, transfer and brokerage: estates in land; sales contracts; mortgage transactions; titles; conveyances, landlord and tenant; restrictions and zoning; eminent domain. Prerequisite: REE 3040, or permission of instructor.

## REE 4121 REAL ESTATE MANAGEMENT

Theories and techniques of professional management of real estate including such topics as creating a management plan; merchandising space; economics of alternates; market analysis; the maintenance process; owner-tenant-manager relations; operating budgets; tax consideration; ethics. Prerequisite: REE 3040, or permission of instructor.
REE 4200 REAL ESTATE FINANCE
Financial analysis and structuring of real estate projects; traditional and creative concepts and mechanisms for construction financing and permanent financing of residential and income producing property. Prerequisite: REE 3040, or permission of instructor.

## REE 4221 VALUATION OF REAL ESTATE

Valuation and appraisal framework applied to residential and income producing property; role of computers; valuation theory and process as a guide to business decisions. Prerequisite: REE 3040, or permission of instructor.

## REE 4301 REAL ESTATE INVESTMENT

Fundamentals of acquisition, ownership, and disposition of investment property; taxation and tax shelter; cash flow projections; analysis of specific types of investment property; utilization of computers as a decision-making tool. Prerequisite: REE 3040, or permission of instructor.

Measurement and lorecasting of economic activity in an urban/regional context; factors influencing economic growth and land allocation. Prerequisite: REE 3040, or permission of insfructor.
REE 4731 URBAN LAND PLANNING AND USE
Theories of city growth and structure, operations of the real estate markef in land allocation; application of above concepis to current practices in city and regional planning. Prerequisite: REE 3040, or permission of instructor.
REE 4730 URBAN LAND ACQUISITION AND DEVELOPMENT
Real estate development: acquisition of raw land; zoning: subdivision into sites; provision of utilities and services: tinancing. merchandising of improved sites. Emphasis on design and development of residential communities. Prerequisite: REE 3040, or permission of instructor.
REE 4750 REAL ESTATE AND REGIONAL DEVELOPMENT POLICY
A capstone course in integrating all the aspects of real estate and regional development learned in previous courses. projects, cases, and field trips. To be taken in the student's senior year. Prerequisife: Permission of instructor.
REE 4800 REAL ESTATE MARKETING
Organization and operation of a real esfate brokerage office, including selection, training and financing of sales personnel: obtaining and controlling listings: process and methods involved in the selling of real estate: promotion activities, including advertising and public relations; growth problems; professionalism; ethics. Prerequisite: REE 3040, or permission of instructor.
REE 4905 INDEPENDENT STUDY IN REAL ESTATE
(1-10)
Individual conferences: supervised readings; reports on personal investigations. Consent of faculty futor and Department Charperson required.
REE 4930 SPECIAL TOPICS IN REAL ESTATE
(1-10)
For groups of students desiring intensive study of a particular fopic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
REE 6020 INDUSTRIAL REAL ESTATEI
General overview of industrial real estate, focusing on types of activities; locational requirements; financing techniques: brokerage: government influence; current trends; technological change; characterisfics of industrial buildings
REE 6021 INDUSTRIAL REAL ESTATE II
Introduction to investment and valuation problems in industrial real estate. Topics include: faxation and investment analysis; discounted cash flow techniques; appraisal framework applied to income properties. A computer will be utilized in approaching the above problems
REE 6111 INCOME PROPERTY APPRAISAL
Valuation and appraisal framework applied to income properties; capitalization; rates and techniques: discounting, and compound interest; morigage-equify analysis. Includes Ellwood analysis; the role of computers: valuation as a guide to business decisions
REE 6121 REAL ESTATE MANAGEMENT
Theories and techniques of professional management of real estate, including such topics as creating a management plan: merchandising space; economics of alfernates; market analysis; the maintenance process: owner-tenanf-manager relations; operating budgets; tax consideration; ethics. Prerequisife: REE 3040. or permission of instructor

REE 6195 SEMINAR IN REAL ESTATE VALUATION THEORY \& PRACTICE
A study of the process of property valuation, utilizing cost, market and income approaches. The role of computers and mass appraisal techniques will also be examined. Prerequisite: Graduafe standing and permission of instructor

## REE 6200 REAL ESTATE FINANCE

Financial analysis and structuring of real estate projects; traditional and creative concepts and mechanisms for construction financing and permanent financing of residential and income-producing property. Prerequisite: REE 3040, or permission of instructor.
REE 6221 VALUATION OF REAL ESTATE
Valuation and apprassal framework applied to residential and income-producing property; role of computers: valuation theory and process as a guide to business decisions. Prerequisite: REE 3040, or permission ol instructor
REE 6295 SEMINAR IN REAL ESTATE FINANCE
A study of financial institutions, their methods: and inter-regional flows of funds in morfgage markets.
Further emphasis is placed on national economic policies affecting mortgage markets. Prerequisite: Graduate standing and permission of instructor

## REE 6301 REAL ESTATE INVESTMENT

Fundamentals of acquisition, ownership and disposition of investment property; taxation and tax shelfer; cash llow projections, analysis of specific types of investment property; utilization of compufers as a decision-making tool Prerequisite REE 3040, or permission of instructor

REE 6395 SEMINAR IN REAL ESTATE INVESTMENT AND TAXATION
The techniques ol real estate investment analzsis, utilizing present value and cash flow approaches. The impaci of Federal taxation on real estate Ivesiment decision. Prerequisite: Graduate standing and permission ol instructor
REE 6710 REGIONAL DEVELOPMENT
Measurement and forecasting of economic activify in an urban/regional context; factors influencing economic growth and land allocation Prerequisite, REE 3040, or permission of instructor. communities. Prerequisite REE 3040, or permission of instructor
REE 6750 REAL ESTATE AND REGIONAL DEVELOPMENT POLICY
A capstone course in integrating all the aspects of real estate and regional development learned in previous courses, projects, cases, and field trips. To be taken in the student's senior year. Prerequisite: permission of instructor.
REE 6795 SEMINAR IN URBAN HOUSING POLICY \& PROBLEMS
Examination of national housing policies and their formulation; the role of the public and private sectors in regard to housıng problems; effectiveness of various housing policies. Prerequisites: RES 6715, and permission of instructor
REE 6800 REAL ESTATE MARKETING sales personnet; obtaining and controlling listings; process and methods involved in the selling of real estate: promotion activities, including advertising and public relations; growth problems; professionalism; ethics Prerequisite: REE 3040, or permission of instruclor.

## REE 6820 INDUSTRIAL BROKERAGE

Defines distinctions between industrial brokerage and general real estate brokerage; role and functions of the industrial broker: Industrial brokerage practice. Includes negotiating and leasing: regulations and ethics
REE 6906 INDEPENDENT STUDY OF REAL ESTATE
Individual conferences: supervised readings: reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
REE 6932 SPECIAL TOPICS IN REAL ESTATE
For groups of students desiring intensive study of a particular topic or a limited nuer of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
REE 6935 SEMINAR IN INTERNATIONAL REAL ESTATE
Current trends and issues affecting industrial real estate on an international level. Topics include: the multinational corporation and its location decisions: foreign taxation: international trade and exchange rates.

## REE 6946 INDUSTRY PROJECT

Advanced individual or group study of specialized problems in the real estate field. Guidance of study to be provided by real estate faculty. Prerequisite: Permission of advisor.
URP 4006 THE URBAN SCENE
Introductory course to the urban phenomenon; historical and contemporary consideration of cities; functhons and purposes of cities: economic. social, and cultural aspects of urbanization.
URP 4023 URBAN AND REGIONAL ANALYSIS
Theories of urban and regional growth; economics of location and agglomeration; urban and regional social accounting. economic base analysis, input-output models, gravity models, and linearprogramming. Urban structure and performance.

## URP 4027 URBAN PROBLEMS AND POLICIES

Consideration of the scope of the urban agenda. Selected problems of contemporary cities. Use of benefit-cost analysis, program planning and evaluation, non-market decision-making, user charges, and externalities in an urban environment. Interrelation of private and public sectors in managing aspects of the urban system: role and contributions of planners and other professionals.

## URP 4055 PLANNING \& MANAGEMENT IN AN URBAN ENVIRONMENT

General examination of selecled aspects of the urban environment that are becoming concerns for policy makers. Topics covered include: growth and development of urban and metropolitan areas; housing and transportation: the inner city: poverty and racial problems; and urban finance and politics. The purpose is to sharpen conceptions of the ways business is involved in the urban scene, and the steps business can take to ameliorate urban problems.

## URP 4905 INDEPENDENT STUDY IN URBAN AND REGIONAL AFFAIRS

Individual conferences: supervised readings: reports on personal investigations. Consent of facully futor and Department Chairperson required.

## URP 4930 SPECIAL TOPICS IN URBAN AND REGIONAL AFFAIRS

(1-10)
For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
URP 5057 COMPARATIVE URBAN SYSTEMS
Comparative analysis of the major characteristics, similarities, and differences in the urban process, as manifested in the United States and abroad.
URP 5312 URBAN LAND USE PLANNING
Elements of the general land use plan: location and space requirements; the use of models in planning; development of the land use plan; policy plan and implementation.
URP 5881 URBAN DESIGN
Relatıonship of cities and space; designs for urban living; architectural and aesthetic considerations;
human wellare and urban structure; planning methods in the private and public sectors; performance evaluations.
URP 6905 INDEPENDENT STUDY IN URBAN AND REGIONAL AFFAIRS
(1-10)
Individual conterences; supervised readings; reports on personal investigations. Consent of faculty iutor and Department Chairperson required.
URP 6934 SPECIAL TOPICS IN URBAN AND REGIONAL AFFAIRS
(1-10)
For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise olfered in the curriculum. Consent of laculty supervisor and Department Chairperson required.
URS 5925 FACULTY-STUDENT WORKSHOP IN URBAN STUDIES
Urban studies workshop that gives faculty and students an opportunity to present reports on their current research and listen to invited researchers in urban affairs.

## URS 6000 SURVEY OF URBAN AFFAIRS

Graduate level survey course encompassing the dynamics of the urban environment, including urban form and structure, land use patterns, housing, transportation, education, poverty and race, other policy and problem considerations. Addresses the implications of management decisions.

## TRANSPORTATION MANAGEMENT

## DEFINITION OF PREFIX

TRA-Transportaion.

## TRA 4012 TRANSPORTATION LOGISTICS

Consideration of transportation logistics and its relationship to production and distribution. Discussion of characteristics, management, legislation, and public regulation of various modes of transportation.
TRA 4101 TRANSPORTATION RATE MAKING
Description and analysis of rate making, for both passenger and cargo, in the various modes of transportation - including trucks, railroad, airlines, and ocean transportation. Classes may concentrate on one particular mode for practical applications.
TRA 4203 PHYSICAL DISTRIBUTION MANAGEMENT
Distribution in overall company operations; organization ol the traffic function; determination of classification and rates; integration of transportation with production flow, inventory management, warehousing, marketing policies, and plant location.
TRA 4240 TRANSPORTATION SYSTEMS AND SERVICES
Survey and analysis of transportation modes, including rail, motor, air, water, pipeline, and mass transit, and their impact on the social and economic systems; discussion of current problems.
TRA 4320 TRANSPORTATION REGULATION
Study of the economic and constitutional basis of transport regulation; the scope of regulation. Discussion of the regulation of industrial traffic and transport modes; the structure and policies of federal and state regulatory agencies.
TRA 4380 TRANSPORTATION POLICY
Consideration of national transportation policy; the principal policy issues currently facing the transportation modes.
TRA 4410 AIR TRANSPORTATION
A comprehensive introduction to the total air transportation environment including general economic characteristics of basic areas; commercial, private, corporate, and airline categories; government promotion and regulation of the industry, including aircraft manufacfuring and operation; air traffic control; and airport support and functions.
TRA 4411 AIRPORT MANAGEMENT
Application of management principles to airport operation, with emphasis on unique characterists of airport linance; government relations and regulations; airline relations and interdependence.
TRA 4412 AIRCARRIER MANAGEMENT
An introduction to the broad scope of airline management practices and policies. Particular emphasis on problem analysis in financing, marketing, scheduling, fleet planning, facilities planning, maintenance, and general operations
TRA 4510 MASS TRANSPORTATION AND URBAN PROBLEMS
Urban and metropolitan transportation development; requirements, benefits and costs of alternative approaches 10 mass transit; management techniques and operating principles; policy and regulation.
TRA 4906 INDEPENDENT STUDY IN TRANSPORTATION
(1-10)
Individual conlerences; supervised readings; reports on personal investigations. Consent of faculty futor and Department Chairperson required.

## TRA 4936 SPECIAL TOPICS IN TRANSPORTATION

(1-10)
For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

Full time supervised work in a selected organization. Prerequisite: At least twenty hours in transportation; consent of instructor and Department Chairperson required.

## TRA 5245 TRANSPORTATION LOGISTICS

Ouantitative methods applied to solving problems in business logistics; mathematical and statistical models; optionization theory and simulation. Problems selected from areas of physical distribution management, inventory control, mode selection, and facility locations. transportation firms; economic analysis of marketing problems; capital formation; costs; pricing; labor relations; and government regulation.

## TRA 5601 PUBLIC UTILITY PRINCIPLES

An analytical and descriptive survey course, treating the historical development of public utilities. The economics, legal environment, and organızation ol public utilities are discussed and analyzed. Regulation theory as it applies to electric, gas, water, and communications industries is covered.

## TRA 6035 GRADUATE SURVEY OF TRANSPORTATION MANAGEMENT

Graduate survey of transportation, its elements, and their impact on society. History, economics, and regulatory principles in transportation. Current policies and problems for all the major transportation modes.
TRA 6905 INDEPENDENT STUDY IN TRANSPORTATION
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
TRA 6936 SPECIAL TOPICS IN TRANSPORTATION
For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.


## SCHOOL OF EDUCATION

The School of Education offers both bachelor's and master's degree programs that meet requirements for certification to be employed as a teacher, counselor, school psychologist, supervisor, or principal in Florida schools.

All degree programs of the School make every effort to recognize the urban and multicultural context in which schools in South Florida operate, and the commitment of the University to international understanding. The School also provides service on a variety of programmatic and operational matters to area schools and other educational agencies in South Florida. Research and development activities are carried out by the faculty to improve the effectiveness of both the School's personnel development and service missions.

The School of Education has six Divisions, each responsible for specific bachelor's and master's programs leading to those degrees and appropriate professional certification. Detailed information on each of the programs of the Divisions is given below.

The School of Education maintains an Office of Student Information and General Advisement (D.M. 398). The prospective student is invited to direct inquiries there for general information on careers in Education and on the program in which he or she is interested.

## GENERAL PROGRAM DESIGNS <br> UNDERGRADUATE

Undergraduate courses offered by the School of Education are designed to be performance- or competency-based. Typically, courses include a requirement to spend time in schools as well as class time on campus.

The typical undergraduate student will complete 90 quarter hours in study at Florida International; and all are expected to complete the last 45 hours of their undergraduate study at Florida International University. Twenty quarter hours taken as a Special Student at the University may be applied to a bachelor's degree program if the work is applicable to the student's major.

Foundations of Education Requirement: Teacher certification regulations in Florida require completion of one course each in the social and psychological foundations of education. Courses that meet this requirement are offered in the community college, and the student is urged to complete those courses before enrolling at Florida International. Otherwise, courses in the two areas must be completed at the University, and should be taken in the first quarter of registration. The following courses offered at the University meet this requirement:

Psychological Foundations
DEP 3000 Human Growth and Development
or
EDP 3004 Introductory Educational Psychology
Social Foundations
SOC 3281 School and Society
or
EDF 3542 Philosophies of Education or
EDF 4521 Education in History
Reading Competencies Requirement: A Florida Department of Education regulation requires that all persons applying for teacher certification show evidence of having been prepared in specific skills for teaching Reading. All programs in the School are designed to meet this requirement, and the student's advisor will develop his or her program of study accordingly.

Professional Education Core: Every teacher education student, whatever his or her area of specialization, must enroll in three common courses during the Junior year. This common "core" consists of the following courses:
EDF 3604
Schooling in America
EDG 3321 General Teaching Lab I: Basic Teaching Skills
EDG 3322 General Teaching Lab II: Human Relation Skills

Subsequent special teaching laboratories and courses build on these core courses, to extend and refine understandings and skills. All programs include one full quarter of student teaching.

Bachelor's programs typically require course work in the College of Arts and Sciences or one of the other Schools. These courses provide necessary subject matter preparation to go along with professional preparation.

A student graduates with a Bachelor of Science degree, qualified for a Rank III Graduate Teacher Certificate in his or her field of specialization.

Professional education courses beyond the core and offered as a part of undergraduate teacher certification programs are open only to a student who has been admitted to a teacher preparation program. Other students may be admitted by permission of the course instructor only.

## GRADUATE

Graduate courses offered by the School are also designed to be performance- or competency-based. Graduate programs are typically designed to require some course work in Education, some in the College of Arts and Sciences or one of the other Schools, and electives in any academic unit.

The specifics of any master's degree program are developed between the student and his or her advisor to reflect individual student interests within the context of professional certification requirements. A typical program will include courses, seminars, and appropriate field experiences.

The typical graduate student will complete 45 quarter hours at Florida International to earn a Master of Science in Education degree. The programs in Counselor Education and School Psychology require 90 quarter hours. As a general rule, a student may transfer 10 quarter hours taken at another accredited college or university toward a 45-quarter hour master's degree program, and 15 toward a 90 -quarter hour program at Florida International. Also, 15 quarter hours of work taken as a Special Student at Florida International may be applied to a master's program if applicable to the student's major.

Reading Competencies Requirement: A State Department of Education regulation requires all applicants for certification to show evidence of having been prepared in specitic skills for teaching Reading. This may be waived in graduate degree programs for students who can verify that they have received this training at the undergraduate level or in an approved inservice education program. Otherwise, and depending on the student's major, either RED 6147 or RED 6333 will be required as part of the master's degree program.

## ADMISSION

## UNDERGRADUATE

The School will accept as an undergraduate any person who holds an Associate of Arts degree, or its equivalent, and will provide that student with a program leading to the bachelor's degree and teacher certification. A student having an Associate of Science degree will also be accepted by the School and will receive assistance in developing a program of studies as required for the bachelor's degree sought. Most programs require specific lower division prerequisites. These should be completed in the community college. Otherwise, admission to the School of Education may have to be delayed until this prerequisite coursework has been completed.

## GRADUATE

A student applying for admission to graduate study must meet the criteria used in the State University System of Florida. Presently these are either a 3.0 ("B") average in the upper division, or a combined score of 1,000 on the Graduate Record Examination (verbal and quantitative aptitude sections). A special CLEP examination may be used in lieu of the GRE test by certain students seeking admission to the master's degree program in Vocational Education.

Unless otherwise specified, master's degree programs require that an applicant hold or qualify for a Florida Rank III Certificate in his/her selected major as a condition for acceptance. Exceptions to this are clearly indicated in Division statements on graduate admissions. Further, individual programs may have admission stipulations that go beyond these criteria.

The student should carefully check this catalog and consult with the Division office in the School that is responsible for the academic major in which he or she is interested before applying for graduate admission to the University, to be sure that all admissions criteria are known.

## GRADING SYSTEM AND POLICIES

Course work in the School of Education is graded A, B, C, D, F, CR, NC (see page 21 for further information).

Undergraduate students must maintain an overall GPA of 2.0 in order to graduate. The grade of $D$ is not accepted toward graduation in any required program of study course, be it in the School of Education or any other unit of the University. Further, a student will not be approved for student teaching with a grade of $D$ in any required program of study course.

Graduate students must maintain an overall GPA of 3.0 in order to graduate. Further, no more than two $C$ grades and no D grades received in courses that are a part of a master's degree program of study will be accepted toward graduation.

# DIVISION OF GENERAL PROFESSIONAL EDUCATION, ADULT EDUCATION, AND EDUCATIONAL ADMINISTRATION 

Peter F. Oliva, Professor and Chairperson Glenn A. Goerke, Professor
Charles Divita, Jr., Associate Professor Stephen M. Fain, Associate Professor Robert V. Farrell, Associate Professor Paul D. Gallagher, Associate Professor

Lorraine R. Gay, Associate Professor<br>John J. Kampsnider, Associate Professor<br>Sarah W. J. Pell, Associate Professor<br>James D. Wells, Associate Professor<br>Allen Fisher, Assistant Professor and Assistant Dean

The Division offers master's programs in Administration and Supervision and in Adult Education. It also offers the undergraduate "core" courses required for every teacher education student.

In addition, the Division offers a number of advanced general courses, some of which are requirements of various master's degree programs offered by the School. Among these offerings are courses in Instructional Technology, Instructional Media, Analysis of Teaching, Educational Research, and Comparative and International Education.

## UNDERGRADUATE COURSES

The Division offers the three "core" courses required for every teacher education student: EDF 3827. EDG 3321, and EDG 3322.

## GRADUATE PROGRAMS ADMINISTRATION AND SUPERVISION

The Division offers master's degrees in Elementary School Administration and Supervision; Secondary School Administration and Supervision; and General School Administration and Supervision (combined Elementary and Secondary). The Master of Science degree is awarded on successful completion of all requirements; the program qualifies graduates for Rank II certification in Administration and Supervision in Florida. As soon as students are admitted to the master's degree program, they should see their assigned advisors to plan a program of studies.

Requirements for each of the three programs are outlined below. In addition to the requirements shown below, each student must satisfy, prior to obtaining the degree, a state requirement of competency in the teaching of reading. The reading requirement may be satisfied by successful completion of one of the following alternatives: (1) an appropriate course or courses taken as part of the undergraduate program, (2) RED 6656, Instruction in Reading, or

RED 6333. Teaching of Reading in Secondary School, at Florida International University, (3) an approved course taken at another accredited institution, or (4) an approved in-service course.

An applicant to the program in School Administration and Supervision must meet the Board of Regents criteria for admission to graduate study, possess or be qualified for a Florida Rank III graduate certificate, and have completed at least one year of successful teaching as a fulltime teacher in an elementary or secondary school. (Service as an aide or substitute does not meet the experience requirement.)

To be certified in School Administration and Supervision in Florida a person must have at least three years of successful teaching experience in an elementary or secondary school. While one year of successful teaching will meet the experience requirement for admission to the master's degree program, the three-year teaching experience requirement must have been completed either before or at the same time as degree requirements are completed.

## PROGRAM REQUIREMENTS ELEMENTARY SCHOOL ADMINISTRATION AND SUPERVISION

Campus Location: Tamiami Campus only DEGREE: Master of Science

|  |  | Quarter Hours |
| :---: | :---: | :---: |
| Core Requirements: |  | 16 |
| EDA 6061 | The Organization and Operation of Public School Systems | 4 |
| EDS 6050 | Supervision in Education | 4 |
| EDG 6250 | Curriculum Development | 4 |
| EDF 5481 | Analysis and Application of Educational Research | 4 |
| Other Courses: |  | 23-25 |
| EDA 6510 | The Administration of an Elementary School | 4 |
| EDG 6285 | Curriculum Evaluation and Improvement in Urban School Systems | 4 |
| EDS 6115 | Staff Development Programs in Urban School Systems | 4 |
| EDA 6223 | Emerging Designs for School Organization and Staff Utilization | 4 |
| EDE 6205 | Curriculum Design for Childhood Education | 4 |
| EDA 6943 | Supervised Field Experience | 3-5 |
| Electives: from Education, School of Business and Organizational Sciences, or College of Arts and Sciences |  | 4-6 |

## SECONDARY SCHOOL ADMINISTRATION AND SUPERVISION



EDA 6530 The Administration of a Secondary School 4
EDG 6285 Curriculum Evaluation and Improvement in Urban School Systems 4
EDS 6115 Staff Development Programs in Urban School Systems
Emerging Designs for School Organization 6223
and Staff Utilization
ESE 6215
Secondary School Curriculum
4
EDA 6943
Supervised Field Experience 3-5
Electives: from Education, School of Business and Organizational Sciences, or College of Arts and Sciences

## GENERAL SCHOOL ADMINISTRATION AND SUPERVISION

Campus Location: Tamiami Campus only<br>Degree: Master of Science<br>Quarter Hours<br>16<br>Core Requirements<br>EDA 6061 The Organization and Operation of Public School Systems<br>4<br>EDS 6050 Supervision in Education 4<br>EDG 6250 Curriculum Development 4<br>EDF 5481 Analysis and Application of Educational Research<br>4<br>Other Courses<br>EDA 6510<br>The Administration of an Elementary School<br>4<br>EDA 6530 The Administration of a Secondary School<br>EDG \(6285 \quad \begin{gathered}Curriculum Evaluation and Improvement in<br>Urban School Systems\end{gathered}\)<br>EDS \(6115 \begin{gathered}Staff Development Programs in Urban<br>School Systems\end{gathered} \quad 4\)<br>EDS \(6115 \begin{gathered}Staff Development Programs in Urban<br>School Systems\end{gathered} \quad 4\)<br>EDS \(6115 \begin{gathered}Staff Development Programs in Urban<br>School Systems\end{gathered} \quad 4\)<br>EDA 6223 Emerging Designs for School Organization and Staff Utilization<br>EDE 6205 Curriculum Design for Childhood Education<br>Secondary School Curriculum<br>Supervised Field Experience<br>31-33<br>ESE 6215<br>EDA 6943<br>4<br>4<br>4<br>3-5

## 47-49

## ADULT EDUCATION

The Graduate Program in Adult Education is designed for the individual who is serving, or chooses to serve as learning facilitator, training director, counselor, administrator, curriculum developer and/or researcher in adult and continuing education programs in business and industry, public schools, hospitals, governmental agencies, community colleges, universities, civic organizations, military service or other agencies. Graduate programs of study are designed in relation to an individual's specific interests, needs and career goals.

The Division offers two master's degree programs in Adult Education - Adult Education: Administration and Supervision, and Adult Education: Curriculum and Instruction. Two options are possible in the Administration and Supervision program: (1) Public School Administration (which leads to Florida Rank II certificate), or (2) General Administration/NonPublic School Administration (not a certification program).

## ADMINISTRATION AND SUPERVISION

## Campus Location: Tamiami Campus only <br> DEGREE: Master of Science

|  | Quarter | Hours |
| :---: | :---: | :---: |
| Required Core: to be selected with an advisor from the following: |  | 28 |
| ADE 5081 Principles and Practices of Adult Education | 4 |  |
| ADE 5260 Organization and Administration of Adult Education | 4 |  |
| ADE 5385 Adult Teaching and Learning | 4 |  |
| ADE $5180 \quad \begin{gathered}\text { Program Development in Adult and Vocational } \\ \text { Education: Community/Institutional Level }\end{gathered}$ | 4 |  |
| EDF 5481 Analysis and Application of Educational Research | 4 |  |
| RED 6333 Teaching Reading in the Secondary School | 4 |  |
| ADE course as elective | 4 |  |
| Area of Professional Emphasis: |  | 12 |
| Option A: Public School Administrator Certification (12) |  |  |
| EDA $6061 \begin{gathered}\text { The Organization and Operation of Public School } \\ \text { Systems }\end{gathered}$ | 4 |  |
| EDS 6050 Supervision in Education | 4 |  |
| EDG 6250 Curriculum Development or | 4 |  |
| Option B: General Administration/Non-Public School Administration (12): Administration-related courses may be selected from education, business, management, public administration or other areas, in consultation with an advisor. |  |  |
| Electives: The candidate will be encouraged to select courses that will increase his or her competence in a teaching specialty or a supportive social/behavioral science. |  | 5-9 |

## CURRICULUM AND INSTRUCTION



Electives:
9
The candidate will be encouraged to select courses that will increase his or her competence in a teaching specialty or a supportive social/behavioral science.

## COURSE DESCRIPTIONS

## OEFINITIONS OF PREFIXES

ADE-Adult Education: EDA-Education: Administration; EDE-Education: Elementary; EDF-Education: Foundatıons: EDG-Educatıon: General; EDS-Education: Supervision; EME-Education: Technology and Media: ESE-Education: Secondary

## GENERAL PROFESSIONAL EDUCATION

EDF 3827 SCHOOLING IN AMERICA
(5) (F,W,S,SS)

Systematic analysis of contemporary schooling and development of an understanding of the nature of educational systems, and the impact of political, legal, fiscal, and cultural issues upon these systems
EDF 5216 AFFECTIVE LEARNING IN THE CLASSROOM
(4) (S)

A behavioral approach to affective teaching techniques, including theoretical background, behavioral definitions, writing affective objectives, and evaluation of affective learning in the classroom. A field experience will be included
EDF 5724 AFRICAN EDUCATIONAL SYSTEMS: A COMPARATIVE APPROACH
Contemporary trends and issues of education in selected independent African countries, with historical analysis of colonial educational policies and practices.
EDF 5287 INSTRUCTIONAL TECHNOLOGY: SYSTEMS APPROACH
(4) (F)

Development of instructional competencies, with an emphasis on the use of a systems approach in the design, implementation, and evaluation of programs.
EDF 5430 MEASUREMENT AND EVALUATION IN EDUCATION (4) (F) Competencies required for the design, construction or selection, and evaluation of measuring instruments.
EDF 5481 ANALYSIS AND APPLICATION OF EDUCATIONAL RESEARCH
(4) (F,W,S,SS)

Competencies required for the design, implementation, and evaluation of educational research, including: problem formulation and analysis; sample selection; instrument selection; formulation of research design and procedure; and data analysis.
EDF 5710 NATIONAL EDUCATIONAL SYSTEMS: A COMPARATIVE ANALYSIS
(4) (W) Examination of educational structures and guiding educational objectives in a limited number of both developed and developing countries. Analysis of the responses of national educational systems to common educational issues.
EDF 5720 LATIN AMERICAN EDUCATION: AN HISTORICAL AND CONTEMPORARY OVERVIEW
Historical and current development of Latin American education, and analysis of the principal forces shaping this development.
EDF 5780 INTERCULTURAL EDUCATION: NATIONAL AND INTERNATIONAL PERSPECTIVES (4) (F) Analysis of concepts and programs of intercultural and international education. Consideration of the role of education in fostering intercultural understanding both nationally and internationally.

## EDF 5905 INDIVIDUAL STUDY

(1-5) (ARR)
The student plans and carries out an independent study project under direction. Topics are to directly relate to content of EDU courses. Independent study may not substitute for regular course offerings. Prerequisite: Written permission of the chairman of the Division and then approval of the instructor.

## EDF 5955 FIELD STUDY ABROAD

(5-10) (ARR)
Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad.
EDF 6215 APPLICATION OF LEARNING THEORY TO INSTRUCTION
(4) (W)

Competencies required for analysis of selected learning theories and application of these theories to an instructional system.
EDF 6486 RESEARCH METHODS IN EDUCATION: EXPERIMENTAL DESIGN AND ANALYSIS (5) (W) Competencies required for the design and analysis of complex educational problems, including: formulation of pre-experimental, true experimental, quasi-experimental, and factorial designs; and related analyses. Prerequisite: EDF 5481.
EDG 3321 GENERAL TEACHING LABORATORY I: BASIC TEACHING SKILLS
(5) $(F, W, S, S S)$

Practice in generic teaching skills, techniques and strategies basic to all age levels and subject matter areas. Lecture, seminar, and laboratory.
EDG 3322 GENERAL TEACHING LABORATORY II: HUMAN RELATIONS SKILLS (5) (F,W,S,SS)
Development of human relations skills to facilitate interaction and prepare students to deal with individuals and groups in a multi-ethnic urban classroom
EDG 5325 ANALYSIS OF TEACHING
(4) (W)

Examination of the research on instruction in teaching, and the development of skills in the observation and analysis of teacher behavior
EDG 6925 WORKSHOP IN GENERAL PROFESSIONAL EDUCATION
Offers an opportunity for school personnel to participate in a problem-oriented workshop in one of the fields of general professional education.
EME 5315 INSTRUCTIONAL MEDIA (4) (W)
Development of competencies for elfective selection and ufilization of instructional media. Consideration of sources. selection, evaluation, and methods of implementing media.

## ADMINISTRATION AND SUPERVISION

EDA 6061 THE ORGANIZATION AND OPERATION OF PUBLIC SCHOOL SYSTEMS
(4) (F,SS)

Examines the public school system as a complex formal organization; the dynamics of community-school interactions; goal clarilication and program evaluation; procurement and allocation of resources; and the legal context within which the school system operates.
EDA 6223 EMERGING DESIGNS FOR SCHOOL ORGANIZATION AND STAFF UTILIZATION
(4) (W,SS)

Critical analysis ol alternatives to traditional school organization and stalling, and possible luture alternatives in public education.
EDA 6510 THE ADMINISTRATION OF AN ELEMENTARY SCHOOL
(4) $\langle F, S$, $\rangle$

Development of competencies required to function as the principal of an elementary school, with particular attention to the urban setting. Prerequisite: EDA 6061
EDA 6530 THE ADMINISTRATION OF A SECONDARY SCHOOL (4) (F,S) Development of competencies required to lunction as the principal ol a secondary school, with particular attention to the urban settıng. Prerequisite: EDA 6061.
EDA 6905 INDIVIDUAL STUDY IN SCHOOL ADMINISTRATION/SUPERVISION
(1-5) (ARR)
For advanced students wishing to undertake an individual project directly related to school administration or supervision. May not substitute lor regular course offerings. Prerequisites: (1) The student must be in a master's degree program in educational administration and supervision at this university, and (2) written permission of the chairman of the Division and then approval ol the instructor is required.
EDA 6928 WORKSHOP IN SCHOOL ADMINISTRATION/SUPERVISION
(3-5) (ARR)
Offers an opportunity for experienced school administrators and supervisors to participate in a problemoriented workshop.
EDA 6930 SEMINAR IN SCHOOL ADMINISTRATION/SUPERVISION
In-depth study ol selected issues and developments in school administration and supervision, including an examination of related research.
EDA 6943 SUPERVISED FIELD EXPERIENCE
(3-5) (F,W,S)
Development ol supervisory skills by undertaking an arranged field-based assignment. Prerequisites: The student must be in a master's degree program in educational administration and supervision at this university, and must have completed all required program courses.

## EDG 6250 CURRICULUM DEVELOPMENT

(4) $(W, S S)$

Development of basic technical constructs of curriculum. Planning of reality-based educational programs at all levels of schooling
EDG 6285 CURRICULUM EVALUATION AND IMPROVEMENT IN URBAN SCHOOL SYSTEMS
(4) $(W, S S)$

Development of skills in curriculum evaluation and strategies for improvement of on-going curriculum. Prerequisite: EDG 6250.
EDS 6050 SUPERVISION IN EDUCATION
(4) $(W, S S)$

Examines supervision as a process and the supervisory role in an educational setting, with particular attention to the development of supervision skills necessary to facilitate both individual and group change.
EDS 6115 STAFF DEVELOPMENT PROGRAMS IN URBAN SCHOOL SYSTEMS
(4) (F,SS)

Identitication and analysis of various staff training strategies and techniques used in an educational setting, with an emphasis on defining staff problems and the processes by which such problems are solved.

## ADULT EDUCATION

ADE 5081 PRINCIPLES AND PRACTICES OF ADULT EDUCATION
(4) (F,S)

Developing a rationale for and philosophy of adult education; contrasting agencies, programs, and curricula; evaluating adults' educational pursuits; analyzing factors affecting adult education; differentiating adults and youths as learners; planning and appraising programs for adults.
ADE 5180 PROGRAM DEVELOPMENT IN ADULT AND VOCATIONAL EDUCATION: COMMUNITY/INSTITUTIONAL LEVEL
(4) $(F, S)$

Analyzing variables central to program and community development; analyzing principles and roles requisite for ellective group functioning; developing a consensus group philosophy; designing, conducting and interpreting studies of community objectives; mobitizing and integrating resources; planning, conducting and interpreting evaluation studies.
ADE 5195 DESIGNING EDUCATIONAL PROGRAMS FOR DISADVANTAGED ADULTS
Distinguishing various forms of disadvantagement; analyzing these problems and forces which inhibit their solution; critiquing responses to these problems; developing training programs, curricula and materials, recruitment strategies, and evaluation designs.
ADE 5260 ORGANIZATION AND ADMINISTRATION OF ADULT EDUCATION
(4) (W)

Analyzing regulations aflecting adult education; selecting and training staff; selecting organization patterns appropriate for given programs; executing managerial responsibilities; arranging for community involvement; and administering supportive services.
ADE 5383 PROGRAM DEVELOPMENT IN ADULT EDUCATION: ACTIVITY/INSTRUCTIONAL LEVEL
(4) (S)

Analyzing models for instructional design; identifying and evaluating variables related to such models; developing designs unique tor adult learners.

# DIVISION OF CHILDHOOD EDUCATION 

George S. Morrison, Professor and Chairperson<br>William A. Jenkins, Professor<br>Edythe Margolin, Professor<br>Nicholas J. Vigilante, Professor<br>Richard L. Campbell, Associate Professor<br>Arthur D. Dempsey, Associate Professor<br>Kathleen A. Gurucharri, Associate Professor

Edward M. Reichbach, Associate Professor
Emma W. Rembert, Associate Professor
Zola J. Sullivan, Associate Professor
Sharon W. Kossack, Assistant Professor
Grover C. Mathewson, Assistant Professor
Alicia Mendoza, Assistant Professor
John Stinson, Jr., Assistant Professor

The Division offers programs at the bachelor's and master's levels. All programs satisfy teacher certification standards of the State of Florida.

## UNDERGRADUATE PROGRAMS

A student enrolled in the Division may pursue a bachelor's degree program in Elementary Education.

Students desiring certification in Early Childhood Education can meet the requirement satisfying the area of concentration in Early Childhood Education.

A student major in the Division, upon admission to the University, is assigned an advisor who will assist the student in planning a program of study. The program of study must comply with the degree requirements of the University, and will reflect the career goals of the student. Upon completion of work specified in the program of study, the student is awarded a Bachelor of Science Degree, and qualifies for Rank III certification in the state of Florida. The typical program of study is outlined below.

## STUDENT TEACHING AND LABORATORY EXPERIENCES

All undergraduate courses offered by the Division require a minimum of three hours per week, per course, of observation and participation in designated schools.

The student teaching assignments are fultilled in designated schools under the direction of classroom teachers and University faculty. This experience is on a full-time basis for a complete quarter. Permission for student teaching will be contingent upon successful completion of all other requirements specified in the program of study. In general, the student is expected to enroll for student teaching in the senior year. Student teaching is not offered in the summer quarter.

An application for student teaching may be obtained from the Office of Student Information and Academic Advising in the School of Education, and should be returned to that Office early in the quarter following completion of 135 quarter hours of credit, and no later than one quarter prior to the time of registration for student teaching.

## ELEMENTARY EDUCATION, GRADES 1-6

Campus Location: Tamiami and North Miami CampusesDEGREE: Bachelor of ScienceLOWER DIVISION PREPARATION:
Required Courses: An Associate of Arts degree or equivalent preparation in basic general
education. If a student has not completed equivalents of the courses noted below, these
courses must be completed at the University.
MAE 4810 and MAE 4811 or their equivalents
Art Skills
Music Skills
Two science courses selected from biological and/or physical sciences.
Foundations of Education (see General Program Designs).
UPPER DIVISION PROGRAM
Professional Education:
EDF 3604 Schooling in America
EDG 3321 General Teaching Laboratory!
EDG 3322 General Teaching Laboratory II
HLP 3013 Health and Physical Education for Children
ARE 3313 Experiencing Art In The Elementary School
MUE 3313 Experiencing Music In The Elementary School
RED 4310 Communication Skills I 5
LAE 4314 Communication Skills II 5
RED 4311 Communication Skills III 5
SSE 4312 Inquiry in Social Studies in The Elementary
School
5
MAE 4312 Inquiry in Mathematics In The Elementary School 5
SCE 4310 Inquiry in Science In The Elementary Schoot 5
EDE 4943 Student Teaching 15
Area of Concentration: 15

Each Elementary Education major must complete a study program in an area of concentration consisting of at least 15 quarter hours to extend the student's background of information and understanding in an area of his or her choice. A wide variety of choices exists; the student should consult his or her advisor.

## GRADUATE PROGRAMS

Master's programs are offered in the areas of Elementary Education, Early Childhood Education and Reading Education. The programs are designed to prepare professional educators for the role of master teacher and leadership roles in these areas.

Applicants for admission to programs in Elementary Education and Early Childhood Education must: (1) hold or qualify for a Florida Rank III certificate in Elementary Education, and (2) satisfy requirements for scholastic aptitude as determined by the graduate admissions standards.

Requirements for admission to the Master's in Reading Program are: (1) completion of an appropriate undergraduate teacher education program, (2) satisfactory scholastic aptitude, as determined by the graduate admission standards and, (3) three years of teaching experience after completion of the undergraduate degree.

Upon completion of his or her program, the student is awarded the Master of Science degree and qualifies for Rank II certification in the state of Florida.

A student must file a program of study with his or her advisor. The program of study must comply with the general master's degree requirements and reflect the career goals of the student. A typical program of study consists of 45 quarter hours of course work. Generally, ten quarter hours of graduate study from another accredited college or university may be transferred if applicable to the student's program.

## ELEMENTARY EDUCATION

Campus Location: Tamiami and North Miami Campuses.DEGREE: Master of ScienceGeneral Professional Education:
EDE 6205 Curriculum Design For Childhood Education ..... 4
EDF 5481 Analysis and Application of Educational Research ..... 4
One course in sociology or psychology (consult advisor) ..... 4
Area of Specialization:
EDE 6225 Educational Programs for Older Children ..... 4
RED 6155 Instruction in Reading ..... 4
(Other courses to be selected from among Elementary course listings) ..... 16
Electives: ..... 9
Quarter Hours

## EARLY CHILDHOOD EDUCATION

Campus Location: Tamiami and North Miami Campuses.
DEGREE: Master of Science
Quarter Hours
General Professional Education:
EDE 6205 Curriculum Design for Childhood Education 4
EDF 5481 Analysis \& Application of Educational Research 4
One course in sociology or psychology (consult advisor) 4
Area of Specialization:
EEC 6205 Education Programs for Younger Children 4
RED 6155 Instruction in Reading 4
(Other courses to be selected from Early Childhood course listings)16
Electives: ..... 9

## READING

Campus Location: Tamiami and North Miami Campuses.
DEGREE: Master of Science
Quarter Hours
General Professional Education:
EDF 5481 Analysis and Application of Educational Research 4
EDE $6205 \quad$ Curriculum Design for Childhood Education 4
EDF 5430 Measurement and Evaluation in Education 4
Area of Specialization:
(Courses to be selected in consultation with your advisor) 29
Electives: 4
45

## COURSE OFFERINGS

## DEFINITION OF PREFIXES

ARE-Art Education, EDE-Education: Elementary: EEC-Education: Early Childhood; FLE-Foreign Language Education: HLP-Heally, Leisure, and Physical Education; LAE-Language Arts and English Educalıon; MAE-Mathematics Education; MUE-Music Education; RED-Reading Education; SCE-Science Education: SSE-Social Studies Education. art experiences in the elementary curriculum. Prerequisites: EDF 3827. EDG 3321, EDG 3322. Art skills or equivalenl.
ARE 6304 INSTRUCTION IN ART (EARLY CHILDHOOD)
(4) (S)

Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.
ARE 6315 INSTRUCTION IN ART (ELEMENTARY)
(4) $(S)$

Relinement of skills related to program development, melhods of teaching, selection of materials, and review of research, in elementary education.
EDE 4943 STUDENT TEACHING
(15) (F,W,S)

A field experience in an elementary school where the student serves as a leacher associale, demonstrating competencies acquired throughout the program. Prerequisites: ARE 3313, HLP 3013 , LEA 4314, MUE 4312, MUE 3313. RED 4310, RED 4311, SCE 4310, SSE 4312.
EDE 5905 INDIVIDUAL STUDY IN ELEMENTARY EDUCATION
(1-5) (F,W,S,SS)
Individual investigation in the area of instruction, in elementary education. Permission of instructor required.
EDE 6205 CURRICULUM DESIGN FOR CHILDHOOD EDUCATION
(4) (F,SS)

A study of curriculum theory, construction and evaluation.
EDE 6225 EDUCATIONAL PROGRAMS FOR OLDER CHILDREN
(4) (W)

Programs developed for older children; curriculum trends based on contemporary psychological, educational and sociological research.
EDE 6925 WORKSHOP IN ELEMENTARY EDUCATION (3-5)
An opportunity for teachers to continue to develop competency in a specified area under the guidance of a specialist in selected fields, in elementary education.
EDE 6930 SEMINAR IN ELEMENTARY EDUCATION
(3) (W)

Advanced study of critical issues and problems in elementary education.
EDE 6948 SUPERVISED FIELD EXPERIENCE IN ELEMENTARY EDUCATION (5-15)(W,S) Field work in education instifutions and organizations, in elementary education.
EEC 4203 CURRICULUM AND INSTRUCTION IN EARLY CHILDHOOD EDUCATION (5) (W,S,)
Practical considerations of basic principles, experiments, research and trends related to early childhood Practical considerations of basic principles, experiments, research and trends related to early childhood and participation are required. Senior class status required.
EEC 4301 EARLY CHILDHOOD EDUCATION PROGRAMS
(5) $(F, S)$

Philosophy and theories of eariy childhood education; physical, emotional, social and mental development. Observation and participation are required. Senior class status required
EEC 4611 TRENDS IN EARLY CHILDHOOD EDUCATION
(5) $(F, W)$

Understanding and dealing with critical issues; assessing the progress of contemporary programs locally and nationally; and recommending solutions for current problems.
EEC 5906 INDIVIDUAL STUDY IN EARLY CHILDHOOD EDUCATION
(1-5) (F,W,S,SS)
Individual investigation in the area of instruction, in preschool and early childhood education. Permission of instructor required.
EEC 6205 EDUCATION PROGRAMS FOR YOUNGER CHILDREN
(4) (W)

Programs developed for young children; curriculum trends based on contemporary psychological, educational and sociological research.

## EEC 6926 WORKSHOP IN EARLY CHILDHOOD EDUCATION

An opportunity for teachers to continue to develop competency in a specified area under the guidance of a specialist in selected fields, in preschool and early childhood education.
EEC 6932 SEMINAR IN EARLY CHILDHOOD EDUCATION
(3) (W)

Advanced study of critical issues and problems in preschool and early childhood education.
EEC 6948 SUPERVISED EXPERIENCE IN EARLY CHILDHOOD EDUCATION
(5-15) (W,S)
Field work in educational institutions and organizations, in preschool and early childhood education.
FLE 4151 BILINGUAL SCHOOL CURRICULUM AND ORGANIZATION
(5) (F)

Development of a theoretical understanding of the nature of bilingualism, a rationale for bilingual education, and a set of principles and skills for organizing bilingual/bicultural curriculum experiences in the elementary school. Prerequisites: EDF 3827, EDG 3321, EDG 3322.

FLE 4870 TEACHING SPANISH AS A SECOND LANGUAGE
(5) (SS)

Development of instructional skills, techniques, and strategies for teaching Spanish to non-native speakers of Spanish in the elementary school. Prerequisites: EDF 3827, EDG 3321, EDG 3322, \& Spanish proficiency.

## FLE 4871 TEACHING SPANISH TO SPEAKERS OF SPANISH

Development of understandings and teaching skills needed in presenting integrated non-official language/language arts programs which would consider factors of languages and cultures in contrast. Prerequisites: EDF 3827, EDG 3321, EDG 3322, \& Spanish proficiency.

HLP 3013 HEALTH AND PHYSICAL EDUCATION FOR CHILDREN
(5) (F,W,S,SS)

Designed to provide competencies necessary for the development and implementation of programs concerning use of leisure time and maintenance of personal health and lamily life. Prerequisites: EDF 3827, EDG 3321, EDG 3322.

Designed to develop and reline those teaching competencies which allow the student to perform effectively as a teacher ol children, using language arts activities to enhance communications skills. Prerequisite: RED 4310

## LAE 4851 TEACHING ENGLISH AS A SECOND LANGUAGE

(5) (W)

Development of instructional skills, techniques, and strategies for teaching English as a second language in the elementary school. Prerequisites: EDF 3827, EDG 3321, EDG 3322, and English proficiency.

## LAE 5414 CHILDREN'S LITERATURE

(5) (F)

Designed to develop a critical analysis of the purposes, strategies for teaching, and evaluation of literature for children. Prerequisites: RED 4310, LAE 4314.

LAE 6305 INSTRUCTION IN LANGUAGE ARTS (EARLY CHILDHOOD)
Refinement ol skills related to program development, methods of teaching, selection of materials and review of research, in preschool and early childhood education.
LAE 6355 INSTRUCTION IN LANGUAGE ARTS (ELEMENTARY) $\quad$ (4) (W) Refinement of skills related to program development, methods of teaching, selection of materials and review of research, in elementary education.
MAE 4312 INQUIRY IN MATHEMATICS IN THE ELEMENTARY SCHOOL
(5) (F,W,S,SS)

Designed to develop and refine those teaching competencies which allow the student to perform effectively as a teacher of children, using mathematics as a mode of inquiry. Prerequisites: EDF 3827, EDG 3321. EDG 3322. MAE 4810 and MAE 4811, or equivalent.

MAE 5555 DIAGNOSIS AND REMEDIATION IN MATHEMATICS
(4) (F)

Strategies for studying symptoms, causes and consequences of difficulties experienced by children in elementary school mathematics. Includes supervised case study and theoretical models. Prerequisite: MAE 4312.
MAE 6305 INSTRUCTION IN MATHEMATICS (EARLY CHILDHOOD)
(4) (W,SS)

Refinement of skills related to program development, methods of teaching, selection of materials and review of research, in preschool and early childhood education.
MAE 6318 INSTRUCTION IN MATHEMATICS (ELEMENTARY)
(4) (W,SS)

Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education.
MUE 3313 EXPERIENCING MUSIC IN THE ELEMENTARY SCHOOL
(5) (F,W,S,SS)

Designed to provide the student with competencies necessary for the development and implementation of music experiences in the elementary curriculum. Prerequisites: EDF 3827, EDG 3321, EDG 3322, Music skills or MVS 3116.
MUE 6305 INSTRUCTION IN MUSIC (EARLY CHILDHOOD)
(4) (S)

Relinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.
MUE 6316 INSTRUCTION IN MUSIC (ELEMENTARY)
(4) (S)

Refinement ol skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education.
RED 4310 COMMUNICATION SKILLS I
(5) (F,W,S,SS)

Designed to develop and refine those teaching competencies which allow the student to perform effectively as a teacher of reading. Prerequisites: EDF 3827, EDG 3321, EDG 3322.
RED 4311 COMMUNICATION SKILLS III
(5) (F,W,S,SS)

Designed to implement and expand upon the teaching competencies developed in LAE 4314 and RED 4310, in a classroom management practicum. Prerequisites: LAE 4314 and RED 4310.

## RED 5447 ANALYSIS AND PRODUCTION READING MATERIALS

(5) (S)

Exploration, creation and evaluation of basic reading materials, commercial and non-commercial. Prerequisite: RED 4310, or equivalent.

## RED 5911 INDIVIDUAL STUDY IN READING

(1-5) (F,W,S,SS)
Individual investigation in the area of instruction. Permission of instructor required.
RED 6155 INSTRUCTION IN READING (ELEMENTARY)
(4) (F,SS)

Rehinement of skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education.
RED 6247 ORGANIZATION AND SUPERVISION OF READING PROGRAM
(4) (F)

The organization and supervision of reading programs; problems of organization and supervision; conlinuity of school wide programs: emphasis on leadership responsibilities. Prerequisites: EDF 5481, EDF 5430.

RED 6305 INSTRUCTION IN READING (EARLY CHILDHOOD)
(4) $(F, S S)$

Relinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.

Development ol skills necessary to identily reading problems in the classroom. Emphasis on how to use reading inventories and diagnostic tests as well as materials and techniques for teaching reading skills and assisting students to overcome reading deliciencies. Special attention to reading problems of students in the specilic subject areas. Prerequisite: one course in reading. pedagogical, and psychotherapeutic technıques. Prerequisites: RED 4310. RED 6546, or their equivalents.
RED 6546 DIAGNOSIS OF READING DIFFICULTY
Technıque for analyzıng and clarifying reading difficulties. Prerequisite: RED 4310, or its equivalent.

## RED 6747 RESEARCH IN READING

(4) (W)

A course to study significant research in reading, and research methodology. Involves planning and research in reading. Permission of instructor required Prerequisites: EDF 5430, EDF 5481.
RED 6805 PRACTICUM IN READING EDG 3322. review of research, in elementary education.
SSE 4312 INQUIRY IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL
(5) (F,W,S,SS)

Designed to develop and refine those teaching competencies which allow the student to perform effectively as a teacher of children. using social studies as a mode of inquiry. Prerequisites: EDF 3827, EDG 3321. EDG 3322.

SSE 6305 INSTRUCTION IN SOCIAL LEARNING (EARLY CHILDHOOD)
(4) (S)

Refinement of skills related to program development. methods of teaching, selection of materials, and review of research, in preschool and early childhood education.

## SSE 6355 INSTRUCTION IN SOCIAL LEARNING (ELEMENTARY)

(4) (S)

Refinement of skills related to program development, methods of teaching, selection of materials, and review ol research. in elementary education.

# DIVISION OF PSYCHO-EDUCATIONAL SERVICES 

Donald C. Smith, Professor and Chairman<br>Wendy J. Cheyney, Associate Professor<br>Marisal R. Gavilan, Associate Professor<br>Daniel A. Kennedy, Associate Professor<br>David E. Nathanson, Associate Professor<br>Colleen A. Ryan, Associate Professor<br>Stephen S. Strichart, Associate Professor<br>Jethro W. Toomer, Associate Professor<br>Carlos M. Alvarez, Assistant Professor<br>Robert E. Anderson, Assistant Professor Mark A. Koorland, Assistant Professor Luretha F. Lucky, Assistant Professor Howard Rosenberg, Assistant Professor Sandra Mason, Instructor

Programs sponsored by the Division train specialists to help individuals experiencing academic or social adjustment problems in the schools. Competency domains are specified for teachers of exceptional children, for consultant or diagnostic teachers, for counselors, and for school psychologists. Students in the Division are prepared for practice in the urban environment. They are helped to integrate theory and research from the social and behavioral sciences, and to develop the capability for identification with people of diverse cultural and racial heritage.

## UNDERGRADUATE PROGRAMS

The undergraduate special education program emphasizes the deveiopment of competencies in diagnosing learning and behavior problems, and prescribing and implementing an appropriate curriculum for exceptional children and youth. The trainee is prepared to conduct total classroom experiences for exceptional children, and, in addition, to reintegrate into the mainstream of education those students who are able to function full or part-time in the regular classroom. Programs have been planned to meet the requirements of Florida for Rank III certification in each of the following areas of specialization: Mental Retardation, Emotional Disturbance, and Specific Learning Disabilities. A student may elect a major in any one of the three areas.

Campus Location: Tamiami and North Miami campuses.
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: An Associate of Arts degree or equivalent preparation in basic general education. A student must complete the courses noted below or their equivalents, with a grade of " C " or better:

Foundations of Mathematics: MAE 4810 or MAE 4811
Foundations of Education: (see General Program Designs).
Art Skills
Music Skills
Two science courses selected from biological and/or physical sciences.

## UPPER DIVISION PROGRAM:

|  |  | Quarter Hours |
| :---: | :---: | :---: |
| Professional Education:* |  | 80 |
| EDF 3604 | Schooling in American K-14 | 5 |
| EDG 3321 | General Teaching Lab I | 5 |
| EDG 3322 | General Teaching Lab II | 5 |
| EEX 3010 C | Introduction to Exceptional Children and Youth | 5 |
| SPA 3000 | Introduction to Language Development and Communication Disorders | 5 |
| EEX 3221 | Assessment of Exceptional Children and Youth | 5 |
| $\begin{gathered} \text { BSC } 3023 \\ \text { or } \end{gathered}$ | Human Biology | 5 |
| EEX 3202 | Foundations of Exceptionality |  |
| RED 4310 | Communications Skills, I | 5 |
| EEX 4241 | Academic Skills for Exceptional Children I | 5 |
| EEX 4242 | Academic Skills for Exceptional Children II | 5 |
| One of the following 3 courses depending upon major: |  |  |
| $\begin{aligned} & \text { EMR } 4360 \\ & \text { or } \end{aligned}$ | Educational Planning for the Mentally Retarded |  |
| ELD 4322C | Educational Planning for Specific Learning Disabilities | 5 |
| or |  |  |
| EED 4227C | Educational Planning for Behavior Disorders |  |
| EEX 4601 | Behavioral Approaches to Classroom Learning I | 5 |
| EEX 4611 | Behavioral Approaches to Classroom Learning II | 5 |
| EEX 4861 | Student Teaching | 15 |
| -Several of the courses in the undergraduate special education program require field work in the community during daytime hours |  |  |
| Electives: 10 |  |  |

## GRADUATE PROGRAMS

The Division prepares resource and consulting personnel whose major function is to help students who are experiencing academic or social adjustment problems in the schools. Competencies are stressed in the assessment of academic and social behaviors, educational programming, individual and group behavior change strategies, compensatory education, and general child advocacy.

An applicant for a master's degree must file an application, including a transcript of academic records and GRE scores, with the Office of Admissions. In addition, the applicant must submit to the Graduate Admissions Committee of the Division: a) three recommendafions, at least one from academic sources and one from work or volunteer experience; b) an autobiography, including a record of work experience. An applicant may also be scheduled for an interview. Criteria for admission include consideration of: GRE scores and academic record: personal references; the candidate's clarity in presenting career aspirations, social intervention skills, evidence of a service orientation (to individuals and community), and willingness to commit time to field experiences during training.

Graduate programs of study are available in Diagnostic Teaching, Counselor Education and School Psychology.

An applicant to the program in Diagnostic Teaching must have completed an undergraduate training program in Special Education, or possess a Rank III Certificate or equivalent in another area of education.

All students entering the graduate programs in Counselor Education or School Psychology with an undergraduate degree in an area other than education must enroll for courses in general professional education in order to meet state Rank III certification requirements in Florida. The student should consult with his/her advisor with reference to these course selections.

Students accepted in the counselor education or school psychology programs should plan for and be prepared to commit time during the day for course-related experiences. The second year of training contains a series of field experiences including an internship for at least one quarter.

Graduate programs of study are available in the following areas:

## DIAGNOSTIC TEACHING

The major competencies of the diagnostic teacher are an extension of those developed by the student in the undergraduate special education curriculum: a) assessment of learning styles through observation and on-going monitoring techniques; b) application of behavioral approaches to the building, monitoring, and remediation of classroom behavior; c) communication of information concerning children to others within the school, and to parents; d) behavioral change monitoring; e) curriculum planning and innovations; f) teacher and parent consultation; g) supervision of special education units.

The program of study is $45-60$ quarter hours, depending upon the student's background. Areas of specialization include: Mental Retardation, Behavior Disorders, and Specific Learning Disabilities.

The program leads to Rank II certification in the state of Florida in either Mental Retardation, Emotional Disturbance, or Specific Learning Disabilities.
Campus Location: Tamiami and North Miami Campuses
DEGREE: Master of Science

## IN FIELD MAJORS

The following program of study is for the student who holds an undergraduate degree in Special Education from Florida International University. A student with an undergraduate major in Special Education from another institution must plan a program with his/her academic advisor to insure having the entry skills for this program.

Quarter Hours
General Professional Education: 4
EDF 5481 Analysis \& Application of Educational Research
4
Area of Specialization
*NOTE: One to three of the following courses depending on the student's preparation: 4-12
EEX 6612 Diagnostic Teaching: Systems \& Behavioral Models

4
EEX 6227 Diagnostic Teaching: Educational Assessment 4
EEX 6106 Diagnostic Teaching: Acquisition of Reading \& Language Skills 4
EEX 6846 Diagnostic Teaching: Advanced Practicum 4
EEX 6736 Diagnostic Teaching: Consultation \& Leadership Skills

4
*NOTE: One of the following three courses depending upon area of certification pursued:
EMR 6852 Advanced Theory and Practice: Mental Retardation or

| ELD 6323 | Advanced Theory and Practice: Specific <br> Learning Disabilities | 4 |
| :---: | :---: | :---: |

EED 6226
EEX 6863
EGC 6001
EGC 6462
EEX 6211
EGC 6616
EGC 6605
Electives:

4

Advanced Theory and Practice: Behavior Disorders
Supervised Field Experience in Special Education ..... 5
Professional Problems I ..... 2
Prolessional Problems II ..... 2
Assessment of Behavior! ..... 5
Program Evaluation in Pupil Personnel Services ..... 4
Professional Problems, III ..... 2

## OUT OF FIELD MAJORS

A student eligible for or holding a Rank III Certificate in other areas of education should consult with an academic advisor for evaluation of entry competencies to the program. If entry competencies cannot be demonstrated either on the basis of course equivalents, work experience or actual performance tests, the student will be asked to complete one or more of the following courses in addition to those listed above:

## Quarter Hours

| EMR 4360 <br> or | Educational Planning for the Mentally Retarded |  |
| :---: | :---: | :---: |
| ELD 4322C | Educational Planning for Specific Learning Disabilities | 5 |
| or |  |  |
| EED 4227C | Educational Planning for Behavior Disorders |  |
| EEX 6051 | Exceptional Children and Youth | 4 |
| EEX 6863 | Supervised Field Experience in Special Education | 5-10 |
| EGC 6707 | Behavior Counseling and Consultation I | 5 |
| NOTE: Two student's EEX 6846 | e of the following courses depending on the aration, EEX 6612, EEX 6227, EEX 6106, C 67368-20 |  |

## COUNSELOR EDUCATION

The program in counselor education requires 90 quarter hours of credit. The first 45 hours are largely generic in nature and lead to the development of competencies in individual and group counseling and other social and behavioral change techniques: consultation; program organization and evaluation; and coordination of school and community-centered interventions. Training patterns are more differentiated during the last 45 hours and lead to specialization in one of the following areas: a) counseling in the elementary schools; b) counseling at the secondary school level; c) counseling in higher education; d) vocational counseling; or e) community counseling.

The school counseling program qualifies the student for certification in Guidance in the State of Florida and meets the standards for preparation of counselors recommended by the American Personnel and Guidance Association.
Campus Location: Tamiami Campus only
DEGREE: Master of Science
Quarter Hours

| General Professional Education:* |  |  | 4 |
| :---: | :---: | :---: | :---: |
| EDF 5481 | Analysis and Application of Educational Research | 4 |  |
| Area of Specialization: |  |  | 64-69 |
| EGC 5405 | Introduction to Counseling | 5 |  |
| EGC 5305 | Educational and Vocational Guidance | 5 |  |
| EGC 6001 | Professional Problems I | 2 |  |
| EGC 6707 | Behavioral Counseling and Consultation I | 5 |  |
| EGC 6708 | Behavioral Counseling and Consultation II | 5 |  |

EGC 6726
EGC 6709**
EGC 6462
EGC 6616
EGC 6203
EGC 6822
EGC 6605
EGC 6890

Human Interaction II: Analysis of Group Participation 5
Human Interaction III: Organizational Consultation 5
Protessional Problems II 2
Program Evaluation in Pupil Personnel Services 4
Measurement and Appraisal in Counseling 4
Advanced Practica in Counseling and Consultation 5
Professional Problems III 2
Supervised Field Experience in Pupil Personnel Services15
*The student should consult with his or her advisor to establish whether additional requirements must be met in general protessional education (Fds. of Ed.; Gen. Methods).
**Required only in community counseling.
Electives:
17-22

The student should consult with his or her academic advisor for guidance in selecting electives appropriate for specialization in school, vocational, or community counseling.

## SCHOOL PSYCHOLOGY

The program in school psychology requires 90 quarter hours of credit and six quarters of graduate study. In general, the competencies to be demonstrated by the student completing this program are derived from the following: behavioral/educational assessment and planning: counseling and child-centered consultation with teachers, parents and agency representatives; staffing, liaison, referral and case management; program development and evaluation; inservice education; administrative consultation; and community development.
Campus Location: Tamiami Campus only
DEGREE: Master of Science
Quarter Hours
General Professional Education:*
EDF $5481 \quad$ Analysis and Application of Educational Research 4
*The student should consult with his or her academic advisor to establish whether additional requirements must be met in general professional education
Area of Specialization:
EGC 5405 Introduction to Counseling 5
EGC 6001 Professional Problems I 2
EGC 6707 Behavioral Counseling and Consultation I 5
EGC 6708 Behavioral Counseling and Consultation II 5
EGC 6725 Human Interaction I 5
EGC 6726 Human Interaction II 5
EGC 6420 Professional Problems II 2
EEX 6211 Assessment of Behavior 1 5
EGC 6255 Assessment of Behavior II 5
EGC 6248 Advanced Practica in Psycho-Educational
Assessment and Consultation 5
EGC 6605 Professional Problems III 2
EGC 6616 Program Evaluation in Pupil Personnel Services 4
EGC 6890 Supervised Field Experience 15
One to three of the following courses depending upon the
student's background:
EEX 6227, EEX 6106, EEX 6846

A student with an undergraduate major in education is encouraged to select electives in the social and behavioral sciences. Other students must meet requirements in general professional education (FDS. of Ed.; Gen. Methods).

## COURSE DESCRIPTIONS

DEFINITION OF PREFIXES
EED-Education: Emotional Disorders: EEX-Education: Exceptional Child, Core Competencies; EGC-Educatıon: Guidance and Counseling; ELD-Education: Specific Learning Disabilities; EMR-Education: Mental Retardation; SPA-Speech Pathology and Audiology.

## SPECIAL EDUCATION

EED 4227 C EDUCATIONAL PLANNING FOR BEHAVIOR DISORDERS
(5) (W,SS)

Concepts and skills with various models of curriculum, instruction, and classroom design for individuals with social and emotional adjustment problems. Laboratory experiences required. Prerequisites: EEX 4241, EEX 4601.
EED 6226 ADVANCED THEORY AND PRACTICE: BEHAVIOR DISORDERS
(4) (S, SS)

Major theories in the area of behavior disorders, and skillis in the application of these theories to education.
EED 6937 SEMINARS IN SPECIAL EDUCATION
(4, repeatable to 12) (F,W,S,SS)
A. Topics in Mental Retardation B. Topics in Specific Learning Disabilities C. Topics in Behavior Disorders
EEX 3010C INTRODUCTION TO EXCEPTIONAL CHILDREN AND YOUTH
(5) (F,W,SS)

Significant concepls in relation to the learning and adjusiment problems of exceptional children and youth. Field experiences required.
EEX 3202 FOUNDATIONS OF EXCEPTIONALITY
(5) (W,SS)

Basic concepts in relation to the biological, genetic, psychological and social foundations of handicapping conditions, as they apply to classroom behavior
EEX 3221 ASSESSMENT OF EXCEPTIONAL CHILDREN AND YOUTH
(5) (SS)

Competencies in assessment of the basic modalities of learning (visual, auditory, haptic and perceptualmotor processes), and the language areas of reading, writing, spelling and arithmetic.
EEX 4241 ACADEMIC SKILLS FOR EXCEPTIONAL CHILDREN, I
(5) (F,S)

Competencies in the selection, adaptation and preparation of appropriate instructional materials in arithmetic, art, music, science and social studies, including skill with audio-visual equipment and other multı-media approaches. Prerequisites, EEC 3010C, SPA 3000. EEX 3221, RED 4310.
EEX 4242 ACADEMIC SKILLS FOR EXCEPTIONAL CHILDREN, II
(5) (W,SS)

Skills in a systems approach to individualized instruction in the classroom, including design and implementation of teaching strategies in all academic skill areas. Field experience required. Prerequisites, EEX 4241. EEX 4601
EEX 4601 BEHAVIORAL APPROACHES TO CLASSROOM LEARNING
(5) (F,S)

Concepts and skills lor building and modifying social and academic behaviors. Skills in precision teaching, behavior modification, and the functional analysis of behavior.
EEX 4611 BEHAVIORAL APPROACHES TO CLASSROOM LEARNING II
(5) (W,SS)

Concepts and skills necessary for the management and maintenance of classroom behavior, including token economies and parent/teacher consultation. Field experience required. Prerequisite: EEX 4601.
EEX 4861 STUDENT TEACHING
(15) (F,S)

A field experience in a program for exceptional children, demonstrating competencies learned throughout the program.

## EEX 4905 INDIVIDUAL STUDY IN SPECIAL EDUCATION

(1-10) (F,W,S,SS)
Concepts or competencies contracted for between an undergraduate sludent and an instructor in accordance with the student's individual needs.
EEX 6051 EXCEPTIONAL CHILDREN AND YOUTH
(4) (F,SS)

Significant concepts in relation to the learning and adjustment problems of exceptional children and youth Field experience and graduate project required
EEX 6106 DIAGNOSTIC TEACHING: ACQUISITION OF LANGUAGE AND READING SKILLS
(4) (W,SS)

Concepts in acquisition and development of language and reading skills.
EEX 6227 DIAGNOSTIC TEACHING: EDUCATIONAL ASSESSMENT
(4) (F,W,SS)

Skill in application ol assessment theory lo classroom diagnosis and to the development of instructional objectives.
EEX 6612 DIAGNOSTIC TEACHING: SYSTEMS AND BEHAVIORAL MODELS
(4) (F,SS)

Skills in the application of diagnostic data io various instructional strategies and behavioral models.
EEX 6736 DIAGNOSTIC TEACHING: CONSULTATION AND LEADERSHIP SKILLS (4) (S,SS)
Skills in parent consultation and education.

Application ol diagnostic teaching models to individualized, remedial and compensatory instructional programs.
EEX 6863 SUPERVISED FIELD EXPERIENCE IN SPECIAL EDUCATION
(5-15) (F,W,S,SS)
Demonstration of the lull range of competencies in diagnostic teaching learned throughoul the program. Internship placements include a variety of held settings.
EEX 6906 INDIVIDUAL STUDY IN SPECIAL EDUCATION
(1-10) (F,W,S,SS)
Concepts or competencies contracted for by graduate students with an instructor
EEX 6927 WORKSHOP IN SPECIAL EDUCATION
(1-10) (VAR)
Selected competencies in special educatıon, developed in short-term, intensive workshops.
ELD 4322C EDUCATIONAL PLANNING FOR SPECIFIC LEARNING DISABILITIES
(5) (W,SS)

Concepts and skills with various models ol curriculum, instruction, and classroom designs for individuals with specilic learning disabilities. Laboratory experiences required. Prerequisites: EEX 4241, EEX 4601.
ELD 6323 ADVANCED THEORY AND PRACTICE: SPECIFIC LEARNING DISABILITIES
(4) $(\mathrm{S}, \mathrm{SS})$

Major concepts in the area of specilic learnıng disability, and skills in the application of these concepts to education.
EMR 4360 EDUCATIONAL PLANNING FOR THE MENTALLY RETARDED
(5) (W,SS)

Concepts and skills used in planning educational, prevocational and vocational programs for the mentally retarded. Laboratory experiences required. Prerequisites: EEX 4241, EEX 4601.
EMR 6852 ADVANCED THEORY AND PRACTICE: MENTAL RETARDATION
(4) $(\mathrm{S}, \mathrm{SS})$

Major concepts in the area of mental retardation, and skills in the application of these concepts to education.
SPA 3000 INTRODUCTION TO LANGUAGE DEVELOPMENT AND COMMUNICATION DISORDERS
(5) $(F, W, S S)$

Skills in assessing and classroom programming for language development and lor various speech and language disorders of children.

## PUPIL PERSONNEL SERVICES

EEX 6211 ASSESSMENT OF BEHAVIOR I
(5) (F,W,SS) Basic concepts in assessment theory. Competencies in using a variety of standardized tests in assessing and writing educational prescriptions for children with disorders in visual, auditory and haptic processing, in language or integrative systems.
EGC 5405 INTRODUCTION TO COUNSELING
(5) (F,W,SS)

Major theoretical concepts in counseling. Competencies in relationship-building, interviewing, roleplaying, simulation and micro-counseling.
EGC 5305 EDUCATIONAL AND VOCATIONAL GUIDANCE
(5) (W,SS)

Concepts and skills pertaining to vocational development, information systems, career education programs, educational-vocational counseling, and socio-psychological influences on career development.
EGC 6001 PROFESSIONAL PROBLEMS, I
(2) (F)

Orientation to professions of counseling, school psychology, and special education.
EGC 6203 MEASUREMENT AND APPRAISAL IN COUNSELING
(4) (S,SS)

Concepts and skills related to the use of tests and other appraisal procedures in counseling. Particular emphasis on career and vocational choice processes. Laboratory experiences included.
EGC 6248 ADVANCED PRACTICA: PSYCHO-EDUCATIONAL ASSESSMENT AND CONSULTATION
(5) (S)

Advanced competencies in psycho-educational assessment.
EGC 6255 ASSESSMENT OF BEHAVIOR II
(5) (W)

Concepts and skills in the assessment of intelligence, with a particular emphasis on the problems of assessing the mentally retarded, the gifted, and members of minority groups. Prerequisite: EEX 6211.
EGC 6462 PROFESSIONAL PROBLEMS II (2)(S)

Concepts and competencies for effective role development in a multi-cultural, multi-ethnic environment, for the psycho-educational professions.
EGC 6605 PROFESSIONAL PROBLEMS, III
(2) $(W, S)$ Competencies in regard to the development of major role and service models and the application of budgeting systems, legal and ethical standards in a psycho-educational setting.
EGC 6616 PROGRAM EVALUATION IN PUPIL PERSONNEL SERVICES ( 4 (F,S) Evaluation skills in the student's area of specialization, including competencies in designing evaluation proposals and conducting an actual program evaluation. Prerequisite: EDF 5481.
EGC 6707 BEHAVIORAL COUNSELING AND CONSULTATION
(5) (F,W,SS)

Concepts and skills in using behavior modification: functional analysis of behavior, precision teaching, token economies, contingency contracting, parent and/or teacher consultation.
EGC 6708 BEHAVIORAL COUNSELING AND CONSULTATION II
(5) (W,S)

Extended laboratory experiences stressing the development of skills in behavioral approaches to individual and group counseling, consultation, parent education, and in-service training. Prerequisite EGC 6707 , or equivalent.

EGC 6725 HUMAN INTERACTION I: GROUP PROCESS LABORATORY

EGC 6726 HUMAN INTERACTION II: ANALYSIS OF GROUP PARTICIPATION
(5) $(W, S)$

Participation in an on-going group with attention given to examination of processes of small group phenomena such as interpersonal communication, norms, decision-making, leadership, authority and membership. Prerequisite: EGC 6725.
EGC 6822 ADVANCED PRACTICA IN COUNSELING AND CONSULTATION
EGC 6890 SUPERVISED FIELD EXPERIENCE IN PUPIL PERSONNEL SERVICES (4 repeatable to 12) ( $\mathrm{F}, \mathrm{W}, \mathrm{S}$ )
Demonstration of the full range of competencies learned throughout the program in Counseling or School Psychology. Internship placements include a variety of field settings.
EGC 6905 INDIVIDUAL STUDY IN PUPIL PERSONNEL SERVICES
(1-10) (F,W,S,SS)
Competencies contracted for between a student and an instructor in accordance with the student's individual needs.
EGC 6925 WORKSHOP IN PSYCHO-EDUCATIONAL SERVICES
(1-10) (VAR)
Selected competencies in counselor education or school psychology, developed in short-term, intensive workshops.
EGC 6936 SEMINARS IN PUPIL PERSONNEL SERVICES
(4, repeatable to 12 ) ( $F, W, S, S S$ )
Special topics in relation to counseling or school psychology.

## DIVISION OF SECONDARY EDUCATION

Robert Shostak, Professor and Chairperson Jan L. Tucker, Professor
C. Edwin McClintock, Associate Professor

Luis A. Martinez, Associate Professor
Shirley H. Musgrave, Associate Professor

Michael J. Wagner, Associate Professor Clement Pennington, Assistant Professor<br>John J. Staczek, Assistant Professor<br>Robert F. Testa, Assistant Professor

The Division offers bachelor's degree programs for the preparation of secondary school teachers, and teachers of art and music in grades 1-12. It offers master's degree programs designed for the continued professional development of teachers.

Unlike traditional programs in secondary education, which emphasize course completion as a sufficient condition for awarding a degree, the programs of the Division emphasize demonstrated performance in specific teaching skills as the main criterion for awarding a degree.

## UNDERGRADUATE PROGRAMS

A student enrolled in the Division may pursue the following programs:

| General: Grades 1-12 |  |
| :--- | :--- |
| Art Education |  |
| Music Education |  |
| Secondary Education: Grades 7-12 | Mathematics Education |
| Biology Education | Modern Language Education |
| Chemistry Education | Physics Education |
| English Education | Social Studies Education |
| History Education |  |

Each student major in the Division, after being admitted to the University, is assigned an advisor in his or her teaching field who will assist the student in constructing a program of study. The program of study must comply with the University's degree requirements and will reflect the career goals of the student. Upon completion of the work specified in the program of study, the student is awarded a Bachelor of Science degree with a major in a specific subject matter area, and qualifies for the appropriate Rank III certification in the State of Florida.

All courses taken in the College of Arts and Sciences which are to be applied to an Education major must be evaluated using the letter grade system.

Students wishing to obtain a second major or second degree in the College of Arts and Sciences should consult an advisor in the field of study they wish to pursue.

## STUDENT TEACHING AND LABORATORY EXPERIENCES

Most courses offered by this Division require observation and participation in selected schools. The course descriptions will identify those courses which require such in-school experiences.

The student teaching assignments are fulfilled in designated field centers under the direction of classroom teachers and University faculty. This experience is on a full-time basis for a complete quarter. Permission to student teach will be contingent upon completion of all other requirement: specified in the program of study. Students may be assigned to student teach during the Winter or Spring Quarter of the senior year. There is no student teaching in the Summer Quarter.

Application for student teaching is the responsibility of the student. Necessary forms may be obtained from the Office of Student Information and Academic Advising in the School of Education, and should be returned to that office early in the quarter following completion of 135 quarter hours of credit and no later than two quarters prior to the time of registration for student teaching.

## ART EDUCATION GRADES 1-12

Campus Location: Tamiami Campus only DEGREE: Bachelor of Science

## LOWER DIVISION PREPARATION:

Required Courses: 1) An Associate of Arts degree in art, or (a) Art History Survey (6 semester hours) and (b) Basic and Figure Drawing (6 semester hours) and (c) Two and Three Dimensional Design ( 6 semester hours); and 2) Foundations of Education ( 10 quarter hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 90 quarter hours required in the student's upper division program.
UPPER DIVISION PROGRAM:
Subject Matter Specialization: 45
ARH 4470 Contemporary Art, Art History Elective 5
ART 3510C Painting 5
ART 3702C Sculpture 5
ART 3150C Jewelry and Metals 5
ART 3401C Printmaking 5
ART 3601C Photography 5
ART 3111C Ceramics 5
Art Elective 5
Professional Education: 45
EDF 3604 Schooling in America K-14 5
EDG 3321 General Teaching Laboratory 1 5
EDG 3322 General Teaching Laboratory II 5
Reading Requirement:
RED 4335 Special Teaching Laboratory: Reading. 5
Special Methods and Student Teaching:
A student must complete the 10 quarter hours of foundations courses, and all core courses before enrolling in 4000 level special methods courses.
ARE 4316 and ARE 4341 must be taken in sequence before ARE 4940.
ARE 4316 Special Teaching Laboratory: Art in Grades K-6

## MUSIC EDUCATION: GRADES 1-12

## Campus Location: Tamiami Campus only <br> DEGREE: Bachelor of Science <br> LOWER DIVISION PREPARATION

Required Courses: An Associate of Arts degree in Music or the following recommended courses: applied, 12 quarter hours; history, 6 quarter hours; organizations, 6 quarter hours; techniques secondary instruments, 6 quarter hours; theory, 18 quarter hours; sight-singing, 6 quarter hours; Foundations in Education, 10 quarter hours. If Foundations in Education requirements are not met at the lower division, they must be taken in addition to the 90 quarter hours required in the student's upper division program.
UPPER DIVISION PROGRAM

| Subject Matter Specialization: | Quarter Hours |
| :---: | :---: |
| Applied Music (Five quarters; $1 / 2$ hour lessons on major instrument each quarter) | 5 |
| Basic Conducting | 2 |
| Beginning Instrumental or Choral | 2 |
| Form and Analysis | 5 |
| Counterpoint | 5 |
| Guitar | 2 |
| Twentieth Century Music History | 5 |
| Orchestration or Choral Techniques | 5 |
| Organizations (5 quarters) | 10 |
| Professional Education: | 45 |
| EDF 3604 Schooling in America K-14 | 5 |
| EDG 3321 General Teaching Laboratory I | 5 |
| EDG 3322 General Teaching Laboratory II | 5 |
| Reading Requirement: |  |
| RED 4335 Special Teaching Laboratory: Reading. | 5 |
| Special Methods and Student Teaching: |  |
| A student must complete the 10 quarter hours of foundations courses and all core courses before enrolling in 4000 level special methods courses. A student must enroll for MUE 4341 and 4940 in consecutive quarters. |  |
| MUE 3142 Special Teaching Laboratory I: Music | 5 |
| MUE 4341 Special Teaching Laboratory II: Music | 5 |
| (minimum prerequisite or corequisite of 30 hours required in subject matter specialization) |  |
| MUE 4940 Student Teaching (Elementary \& Secondary) | 15 |
| Electives: | 4 |
| Sufficient number of hours to make a total of 90 quarter hours at Florida International. |  |

## BIOLOGY EDUCATION: GRADES 7-12

Campus Location: Tamiami campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: 12 quarter hours ( 8 semester hours) of biology; 12 quarter hours ( 8semster hours) of general chemistry; 12 quarter hours ( 8 semester hours) of generalphysics; mathematics through analytical geometry; and Foundations of Education (10 quar-ter hours). If foundations requirements are not met at the lower division, they must be takenin addition to the 90 quarter hours required in the student's upper division program.
UPPER DIVISION PROGRAM:
Quarter Hours
Subject Matter Specialization: ..... 46
Genetics ..... 5
Biochemistry ..... 7
Molecular Biology ..... 7
Developmental Biology ..... 5
Electives in Biology* ..... 10
Organic Chemistry ..... 7
Quantitative Analysis ..... 5
Professional Education: ..... 40
EDF 3604 Schooling in America K-14 ..... 5
EDG 3321 General Teaching Laboratory 1 ..... 5
EDG 3322 General Teaching Laboratory II ..... 5
Reading Requirement: RED 4335 Special Teaching Laboratory: Reading. ..... 5
Special Methods and Student Teaching:
A student must complete ten (10) quarter hours of foundations courses and all core courses before enrolling in 4000 level special methods courses. A student must enroll for SCE 4330 and LAE 4942 in consecutive quarters.
SCE $4330 \quad$ Special Teaching Laboratory: Science (minimum prerequisite or corequisite of 30 hours required in subject matter specialization) ..... 5
SCE 4942 Student Teaching ..... 15
Electives:
Sufficient number of hours to make a total of 90 quarter hours at Florida International.
*BSC 3023, 3033; 3253; OCB 3010; BOT 3823; PCB 3703; BSC 3913 and 4914 are not applicable to this requirement.

## CHEMISTRY EDUCATION: GRADES 7-12

Campus Location: Tamiami campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: 12 quarter hours ( 8 semester hours) of general chemistry; 12 quarter hours ( 8 semester hours) of general physics; mathematics through Calculus I; and Foundations of Education ( 10 quarter hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 90 quarter hours required in the student's upper division program.
Recommended Courses: Organic Chemistry
UPPER DIVISION PROGRAM:

|  | Quarter Hours |
| :--- | ---: |
| Subject Matter Specialization: | $\mathbf{3 6 - 3 8}$ |
| Organic Chemistry I and II | 10 |

Organic Chemistry Laboratories ..... 4
Quantitative Analysis and Laboratories ..... 5
Physical Chemistry and Laboratory ..... 7
Electives in Chemistry ..... 5-7
Calculus II ..... 5
Professional Education:
EDF 3604 Schooling in America K-14 ..... 540
EDG 3321 General Teaching Laboratory I ..... 5
EEG 3322 General Teaching Laboratory II ..... 5
Reading Requirement
RED 4335 Special Teaching Laboratory: Reading. ..... 5
Special Methods and Student Teaching:
A student must complete ten (10) quarter hours of foundationscourses and all core courses before enrolling in 4000 levelspecial methods courses. A student must enroll for SCE 4330and 4942 in consecutive quarters.SCE 4330 Special Teaching Laboratory: Science (minimumprerequisite or corequisite of 25 hours requiredin subject matter specialization)5
SCE 4942 Student Teaching ..... 15
Electives:12-14Sufficient number of hours to make a total of 90 quarter hoursat Florida International.

## ENGLISH EDUCATION: GRADES 7-12

Campus Location: Tamiami Campus only

## DEGREE: Bachelor of Science

LOWER DIVISION PREPARATION:
Required Courses: two courses in freshman English; two courses beyond freshman English in literature; one course in oral interpretation; one course in advanced composition; and Foundations of Education ( 10 quarter hours). If the required courses beyond freshman composition are not completed they will be included in the student's program in addition to regular upper division requirements. If foundations requirements are not met at the lower division, they must be taken in addition to the 90 quarter hours required in the student's upper division program.
UPPER DIVISION PROGRAM:

## Quarter Hours

| Subject Matter | Specialization: |  |
| :--- | ---: | ---: |
| ENG 3500 | Introductory Linguistics | $\mathbf{4 5}$ |
| ENG 4555 | Modern Grammars (prerequisite ENG 3500) | 5 |
| LAE 4464 | Adolescent Literature | 5 |
| Literary Criticism | 5 |  |
| Shakespeare | 5 |  |
| Communications electives | 10 |  |
| Literature electives | 10 |  |Protesional Education:

methods courses. A student must enroll for LAE 4335 and LAE 4942
in consecutive quarters.
LAE 4335 Special Teaching Laboratory: English (minimum prerequisite or corequisite of 30 hours required in subject matter specialization) 5
LAE 4942 Student Teaching 15
Electives:
5
Sufficient number of hours to make a total of 90 quarter hours at Florida International.

## HISTORY EDUCATION: GRADES 7-12

## Campus Location: Tamiami Campus only <br> DEGREE: Bachelor of Science <br> LOWER DIVISION PREPARATION: <br> Required Courses: 1) Two courses in history. 2) One course in the social sciences beyond freshman social science core (select from anthropology, economics, geography, political science or sociology). 3) Foundations of Education (10 quarter hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 90 quarter hours required in the student's upper division program.

## UPPER DIVISION PROGRAM:



Required Courses: Trigonometry. Analytic geometry. Calculus (at least one term). Foundations of Education ( 10 quarter hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 90 quarter hours required in the student's upper division program.
UPPER DIVISION PROGRAM:

|  | Quarter Hours |
| :---: | :---: |
| Subject Matter Specialization: <br> 35 quarter hours beyond calculus, including at least 10 quarter hours in probability and statistics, and 5 quarter hours in computer science. | 35 |
| Protessional Education: | 40 |
| EDF 3604 Schooling in America K-14 | 5 |
| EDG 3321 General Teaching Laboratory I | 5 |
| EDG 3322 General Teaching Laboratory II | 5 |
| Reading Requirement: |  |
| RED 4335 Special Teaching Laboratory: Reading | 5 |
| Special Methods and Student Teaching: |  |
| A student must complete ten (10) quarter hours of foundations courses and all core courses before enrolling in 4000 level special methods courses. A student must enroll for MAE 4333C and SSE 4942 in consecutive quarters. |  |
| MAE 4333C Special Teaching Laboratory: Mathematics (minimum prerequisite or corequisite of 30 hours required in subject matter specialization) |  |
| MAE 4942 Student Teaching | 15 |
| Electives: <br> Sufficient number of hours to make a total of 90 quarter hours at Florida International. | 15 |

## MODERN LANGUAGE EDUCATION: GRADES 7-12

Campus Location: Tamiami Campus onlyDEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Four semesters of elementary and intermediate modern language (may be waived, at the
discretion of the advisor, for native speakers of the target language); and Foundations of
Education ( 10 quarter hours). If foundations requirements are not met at the lower division
they must be taken in addition to the 90 quarter hours required in the student's upper divi-
sion program.
UPPER DIVISION PROGRAM:
Subject Matter Specialization:
45
Phonetics or Contrastive Phonology
5
Intro. Linguistics or Linguistics in Target Language 5
Civilization 5
Syntax/Composition 5
Literature in Target Language 10
MOL Electives 15
Professional Education:
40
EDF $3604 \quad$ Schooling in America K-14 5
EDG 3321 General Teaching Laboratory I 5
EDG 3322 General Teaching Laboratory II 5
RED 4335 Special Teaching Laboratory: Reading ..... 5Special Methods and Student Teaching:A student must complete the 10 quarter hours of foundations coursesand all core courses before enrolling in 4000 level special methodscourses. A student must enroll for FLE 4375 and SSE 4942 inconsecutive quarters.

FLE 4375 Special Teaching Laboratory: Modern Languages (minimum prerequisite or corequisite of 20 hours required in subject matter specialization).5
FLE 4942 Student Teaching ..... 15

Electives:
Sufficient number of hours to make a total of 90 quarter hours at Florida International.

## PHYSICS EDUCATION: GRADES 7-12

Campus Location: Tamiami campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: 12 quarter hours of general physics; 12 quarter hours ( 8 semester hours) of general chemistry; mathematics through Calculus II; and Foundations of Education ( 10 quarter hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 90 quarter hours required in the student's upper division program.
Remarks: Linear algebra, a prerequisite for multi-variable calculus (section 1 below) may be taken at the lower division or at Florida International.
UPPER DIVISION PROGRAM:
Quarter Hours
Subject Matter Specialization:
Physics 3040, 3041, 3042
15
Junior Physics Laboratory 3040L-3042L 6
Modern Physics 10
Electives in Physics 5
Multivariate Calculus 5
Professional Education:
40
EDF 3604 Schooling in America K-14 5
EDG 3321 General Teaching Laboratory I 5
EDG 3322 General Teaching Laboratory II 5
Reading Requirement:
RED 4335 Special Teaching Laboratory: Reading. 5
Special Methods and Student Teaching:
A sludent must complete ten (10) quarter hours of foundations
courses and all core courses before enrolling in 4000 level special methods courses. A student must enroll for SCE 4330 and SCE 4942 in consecutive quarters.
SCE 4330 Special Teaching Laboratory:
Science (minimum prerequisite or corequisite of 25 hours required in subject matter specialization) 5
SCE 4942 Student Teaching 15

## Electives:

Sufficient number of hours to make a total of 90 quarter hours at Florida International

## SOCIAL STUDIES EDUCATION: GRADES 7-12

## Campus Location: Tamiami campus only DEGREE: Bachelor of Science <br> LOWER DIVISION PREPARATION:

Required Courses: 1) Two courses in history. 2) One course in the social sciences beyond freshman social science core (select from anthropology, economics, geography, political science or sociology). 3) Foundations of Education (10 quarter hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 90 quarter hours required in the student's upper division program.
UPPER DIVISION PROGRAM:


Electives:
A minimum of 65 quarter hours at the lower and upper divisions combined must be completed in the social studies subject matter specialization for certification. Electives must include sufficient quarter hours in United States history (10), history other than United States (15), political science (10), geography (10), economics (10), anthropology (5) and sociology (5) to meet social studies certification requirements. It is recommended that the student consider a double major which combines a major in social studies with a major in history, history education, international relations, political science, economics, anthropology or sociology. The student must consult with the social studies advisor about these requirements.

## GRADUATE PROGRAMS

Master's programs are offered by the Division in the following specialized areas:
Art Education Music Education
English Education
Mathematics Education
Science Education
Social Studies Education
A student must file a program of study with his or her advisor. The program of study must comply with the general master's degree requirements and reflect the career goals of the student.

Upon completion of his program, the student is awarded the Master of Science degree
and qualifies for Rank II certification in the State of Florida.
Requirements for admission to programs in Secondary Education are: (1) possession of or qualification for a Florida Rank III Certificate in the area selected, (2) satisfactory scholastic aptitude as determined by the Graduate Admission standards, (3) evidence of satisfactory record in the teaching field.

A typical program of study consists of 45 quarter hours of course work. Generally, ten quarter hours of graduate study from another accredited college or university may be transferred if applicable to the student's program.

All courses taken in the College of Arts and Sciences which are to be applied to an Education Major must be evaluated using the letter grade system.

Note: If students have not met the reading requirement for certification, they will be required to take RED 6333 (See page 242).

## ART EDUCATION

## Campus Location: Tamiami Campus only

 DEGREE: Master of Science1. EDF 5481 Analysis and Application of Educational Research 4
2. ARE 6140 Curriculum and Instruction in Art

4
3. Select one of the following:

4
ARE 5251 Art for Exceptional Children and Youth EDE 6205 Education ESE 6215 Secondary School Curriculum
4. ARE 6262 Organization and Coordination of School and Community Art Programs

4
5. ARE 6706 Seminar in Art Education: Contemporary Issues and Research

4
Teaching Field:
Five graduate art courses, including one art history:
Art History (5)
Studio Art (16)
(4 quarter hours credit for each studio course)
Electives:

## ENGLISH EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Master of Science
Quarter hours

## Education:

EDF 5481* Analysis and Application of Educational Research LAE 6339* Teaching English in the Secondary School 4

ESE 6215 Secondary School Curriculum 4
LAE 6935 Seminar in English Education 4
*These courses to be taken in sequence
Teaching Field: English 20
Electives: 9

45

## MATHEMATICS EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Master of Science
Education: ..... 16
EDF 5481 Analysis and Application of Educational Research ..... 4MAE 63364
MAE 6899 ..... 4 Seminar in Mathematics EducationTeaching Mathematics in the Secondary School
ESE 6215 ..... 4
Teaching Field: Mathematics ..... 20
Electives: In Education and/or Mathematics ..... 9

## MUSIC EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Master of Science
Quarter Hours
Education: ..... 16
ESE 6215 Secondary School Curriculum or
Curriculum Design for Childhood Education EDF 5481 Analysis and Application of Educational Research
MUE 6349 Methodology of Music Teaching ..... 4
MUE 6938 Seminar in Music Education ..... 4
Teaching Field: Courses in music including: ..... 20
MUH 5375 Twentieth Century Music ..... 4
MUT 5325 Arranging ..... 4
MUG 5105 Advanced Conducting ..... 2
Electives: ..... 45
SCIENCE EDUCATION
Campus Location: Tamiami Campus only
DEGREE: Master of Science
Quarter Hours
Education: ..... 16
EDF $5481 \quad$ Analysis and Application of Educational Research SCE 6635 Teaching Science in the Secondary School ..... 4
ESE 6215 Secondary School Curriculum ..... 4
SCE 6933 Seminar in Science Education ..... 4
Teaching Field: ..... 20
Biology or Chemistry or Physics or
One Course in Each of the Following Areas: Biology, Chemistry, Physics (For Junior High Science Teachers)
Electives: ..... 9

## SOCIAL STUDIES EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Master of Science

Quarter Hours

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

ARE-Art Education: ESE-Education Secondary: FLE-Foreign Language Education; LSE-Language Arts \& English Education; MAE-Mathematics Education; MUE-Music Education; SCE-Science Education; SSE-Social Studies Education.

## ART EDUCATION

## ARE 4316 SPECIAL TEACHING LABORATORY: ART IN GRADES K-6

(5) (F,S)

Development of instructional skills, techniques, and strategies for teaching art in the elementary school. Laboratory and field participation required. Prerequisites: EDE 3604, 3321,3322. Minimum prerequisite or corequisite of 30 hours required in subject matter specialization.
ARE 4341 SPECIAL TEACHING LABORATORY: ART IN GRADES 7-12
(5) $(F, W)$

Development of instructional skills, techniques and strategies for teaching art in the junior and senior high school. Laboratory and field participation required. Prerequisites: EDF 3604, EDA 3321, EDG 3322; ARE 4316. Minımum prerequisite or corequisite of 30 hours required in subject matter specialization.

ARE 4940 STUDENT TEACHING IN ART
(15) (W,S)

Supervised teaching in an elementary and secondary school. Prerequisites: EDF 3321, 3322; ARE 4316, 4341: RED 4335, and 30 quarter hours of the course work required in art.

## ARE 5251 ART FOR THE EXCEPTIONAL CHILD

(5) (W,SS)

Development of instructional art skills, techniques, and strategies as related to the exceptional child. Observation and field participation required.
ARE 5905 DIRECTED STUDY IN ART EDUCATION
Individual investigation and research in one or more areas of art education. Prerequisite: consent of professor.
ARE 6140 CURRICULUM AND INSTRUCTION IN ART
(4) (W)

Examination of theoretical bases of curriculum development in art education. Analysis of objectives, content. methods and materials for art instruction in the elementary, junior and senior high school. Prerequisite: EDF 5287.
ARE 6262 ORGANIZATION AND COORDINATION OF SCHOOL AND COMMUNITY ART PROGRAMS
(4) (F,SS)

Procedures for the organization, coordination and evaluation of school, community, and in-service art programs, with particular attention to the urban multi-cultural setting.
ARE 6706 SEMINAR IN ART EDUCATION: CONTEMPORARY ISSUES AND RESEARCH
(4) (S)

Examination of current issues and review of research in art education literature. Delineation and application of an individual research problem. Prerequisite: EDF 5481
ARE 6926 WORKSHOP IN ART EDUCATION
Production and application of materials and techniques in art education, in a laboratory or field setting.

## MUSIC EDUCATION

MUE 3142 SPECIAL TEACHING LABORATORYI
(5) (W)

Development of instructional skills, techniques, and strategies for school music performance organizations through laboratory and field experiences. Prerequisites: EDF 3604, EDG 3321, 3322.
MUE 4341 SPECIAL TEACHING LABORATORY II
(5) (W)

Field-based methods, materials and instructional skills course, which prepares students for internship in an elementary and secondary school setting. Prerequisites: EDF 3604, EDG 3321, EDG 3322, MUE 3142.

MUE 4940 STUDENT TEACHING
(15) (S)

Supervised teaching in an elementary school ( 5 weeks) and a secondary school ( 5 weeks). Prerequisites: EDF 3604. EDG 3321, EDG 3322; MUE 3142. MUE 4341; RED 4325, and 30 quarter hours of the coursework required in music.
MUE 5907 DIRECTED STUDY IN MUSIC EDUCATION
(1-5) (ARR)
Individual investigation in one or more areas of music education.
MUE 6349 METHODOLOGY OF MUSIC TEACHING
(4) $(W, S S)$

Analysis of methods, programs and materials for teaching music in the public schools, and development of music pedagogy skills.
MUE 6925 WORKSHOP IN MUSIC EDUCATION
(1-5) (ARR)
Applications of materials and techniques in music education in a laboratory or field setting.

## SECONDARY EDUCATION: GRADES 7-12

ESE 5908 INDIVIDUAL STUDY
(1-5) (ARR)
The student plans and carries out an independent study project under direction. Prerequisites: Consent of Chairperson of the Division.
ESE 6215 SECONDARY SCHOOL CURRICULUM school. Consideration and evaluation of innovations.
ESE 6425 RESEARCH IN SECONDARY EDUCATION
Examination and evaluation of research studies in secondary education. Prerequisite: At least one course in research methods or equivalent competency. (Determination of equivalent competency will be made by the instructor.)
ESE 6925 WORKSHOP IN SECONDARY EDUCATION
(3-5) (ARR)
Production and application of materials and techniques in a laboratory or field setting. Prerequisite: consent of instructor.
ESE 6935 SEMINAR IN SECONDARY EDUCATION
ESE 6947 SUPERVISED FIELD EXPERIENCE
Field work in an educational institution or organization. Prerequisite: consent of Chairperson of the Division.
FLE 4942 STUDENT TEACHING
(15) (S) Supervised teaching in a junior or senior high school. Prerequisites: EDF 3604, EDG 3321, EDG 3322, RED 4335, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.
FLE 4375 SPECIAL TEACHING LABORATORY: MODERN LANGUAGES
(5) (W)

Development of instructional skills, techniques, and strategies for teaching modern languages in the junior and senior high school. Prerequisites: EDF 3604, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 20 hours in subject matter specialization.
LAE 4335 SPECIAL TEACHING LABORATORY: ENGLISH
(5) (W)

Development of instructional skills, techniques, and strategies for teaching English in the junior and senior high school. Prerequisites: EDF 3604, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 25-30 hours in subject matter specialization.

## LAE 4464 EXPERIENCING ADOLESCENT LITERATURE IN THE JUNIOR-SENIOR HIGH

 SCHOOLAn examination of the most familiar types of literature found in the secondary school English curriculum today; and the development of strategies for organizing and providing a variety of literary experiences for students who dilfer in intellectual abilities and literary tastes.

## LAE 4942 STUDENT TEACHING

(15) (S)

Supervised teaching in a junior or senior high school. Prerequisites: EDF 3604, EDG 3321, EDG 3322, RED 4335, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.
LAE 6339 TEACHING ENGLISH IN THE SECONDARY SCHOOL
(4) (F)

Analysis of methods, programs and materials for teaching English in the junior and senior high school, and development of teaching skills.

## LAE 6935 SEMINAR IN ENGLISH EDUCATION

(4) (S)

Designed for advanced students, the readings and discussions will focus on policy issues and recent research in English education. Though primarily for experienced English teachers and supervisors, the course is open to administrators and others, with the consent of the instructor.

## MAE 4333C SPECIAL TEACHING LABORATORY: MATHEMATICS

(5) (W) Development of instructional skills, techniques, and strategies for teaching mathematics in the junior and senior high school. Prerequisites: EDF 3604, EDG 3321, and EDG 3322 . Field experience required. Minimum prerequisite or corequisite of 25 hours in subject matter specialization.

## MAE 4942 STUDENT TEACHING

(15) (S) Supervised teaching in a junior or senior high school. Prerequisites: EDF 3604, EDG 3321, EDG 3322, RED 4335, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

## MAE 6336 TEACHING MATHEMATICS IN THE SECONDARY SCHOOL

## MAE 6899 SEMINAR IN MATHEMATICS EDUCATION

(4) (S)

Designed to provide the advanced student with deeper understanding of the current state of mathematics educatıon. Major emphasis is on current trends and curriculum projects on the national and international levels, as well as evaluation and research related to these trends.
RED 4335 SPECIAL TEACHING LABORATORY: READING
(5) (F,W,S,SS)

Development ol instructional skills, techniques, and strategies for teaching reading in the junior and senior high school. Attention to attaining competence in subject-matter related reading skills. required.
SSE 4942 STUDENT TEACHING specialization.
SSE 6633 TEACHING SOCIAL STUDIES IN THE SECONDARY SCHOOL

# DIVISION OF HEALTH, PHYSICAL EDUCATION, AND RECREATION 

George B. Pearson, Professor and Chairperson
Judy A. Blucker, Associate Professor
Jack Llewellyn, Associate Professor

Ida F. Chadwick Assistant Professor Richard Lopez, Assistant Professor<br>Ronald W. Perry, Assistant Professor

The Division offers bachelor's and master's degree programs. All courses of the programs are performance-based, are self-paced, and allow considerable individualized instruction.

## UNDERGRADUATE PROGRAMS

Programs in the Division relating to teacher education are designed to meet requirements for certification while leading to a Bachelor of Science degree in either Health Education or Physical Education. A student receiving a degree in Health Education is certified to teach in grades 7 through 12. A student receiving a degree in Physical Education is certified to teach in grades 1 through 12.

A Bachelor of Science degree is also granted to a student completing the Parks and Recreation curriculum. Within the general requirements in this program, the student is given an opportunity to develop a program consistent with his or her interests and career goals.

## HEALTH EDUCATION, GRADES 7-12

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION
Required: Foundations of Education, (10 quarter hours). Completion of lower division Health Education program, Personal Health.

|  | Quarter Hours |  |
| :---: | :---: | :---: |
| Subject Matter Specialization: |  | 50 |
| HUN 3122 Nutrition and Culture | 4 |  |
| HSC 3300 Health \& Social Service Delivery Systems | 5 |  |
| APB 3253 Biological Basis of Human Sexuality | 5 |  |
| MCB 3013 General Microbiology | 5 |  |
| SOP 3932 Psychology of Drug Abuse | 5 |  |
| EVS 3601 Environmental Health | 5 |  |
| ZOO 3731 Human Anatomy or | 5 |  |
| PCB 3703 Physiology | 5 |  |
| HES 4001 Community Health | 5 |  |
| HES 4160 Critical Issues in Health Education | 5 |  |
| Professional Education: |  | 40 |
| EDF 3604 Schooling in America | 5 |  |
| EDG 3321 Teaching Lab | 5 |  |
| EDG 3322 General Teaching Lab II | 5 |  |
| RED 4335 Special Teaching Lab: Reading | 5 |  |
| HES 4303 Specia! Teaching Lab: Health Education | 5 |  |
| HES 4940 Student Teaching | 15 |  |

HUN 3122 Nutrition and Culture 4
HSC 3300 Health \& Social Service Delivery Systems 5
APB 3253 Biological Basis of Human Sexuality 5
SOP 3932 Psychology of Drug Abuse 5
EVS 3601 Environmental Health 5
ZOO 3731 Human Anatomy or 5
PCB 3703 Physiology 5
HES 4001 Community Health 5
ical ssues in Hea
EDF $3604 \quad$ Schooling in America 5
EDG 3321 Teaching Lab I 5
EDG 3322 General Teaching Lab II 5
RED 4335 Special Teaching Lab: Reading
HES 4940 Student Teaching 15

## PHYSICAL EDUCATION, GRADES 1-12

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required; Foundations of Education, (10 quarter hours). Completion of lower division Physical Education program, Personal Health, skill courses in dance, gymnastics, and aquatics, plus two or more activities from both individual sports and team sports. A basic mathematics course and additional physical activity courses are highly recommended.
UPPER DIVISION PROGRAM:
Quarter Hours
Subject Matter Specialization:
PET 3310 Kinesiology
5
PET 3360 Exercise Physiology 5
PET 3430 Physical Education in the Elementary School 5
PET 3202 Physical Education in the Secondary School 5
PET 3640C Adapted Physical Education 5
PCB 3703 Physiology 5
PET 4230C Motor Learning 5
PET 4510 Evaluation in Physical Education 5
The student has the option of selecting 10 quarter hours of course work in the elementary emphasis or secondary emphasis areas.
Electives: Elementary Physical Education Emphasis 10
PET $4430 \quad$ Physical Education for Primary Grades 5
DAE $4300 \quad$ Physical Education for Intermediate Grades 5
or
Electives: Secondary Physical Education Emphasis 10
PEO 4014 Coaching Sports* 5
PET 4622C Athletic Injuries* 5
SOP 3932 Psychology of Drug Abuse 5
HES 4001 Community Health 5
HES $4160 \quad$ Critical Issues in Health 5
Professional Education:

EDG 3321 General Teaching Lab I 5
EDG 3322 General Teaching Lab II 5
RED 4325 Special Teaching Lab: Reading 5
PET 4450L Special Teaching Lab: Physical Education 5
PET 4945L Student Teaching 15
*Student must elect one of these two courses.

## PARKS AND RECREATION

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION
Required Courses: Introductory sociology and mathematics.
Recommended Courses: It is recommended that the student desiring to enter the Parks and Recreation curriculum be a graduate of a two-year program in Recreation Leadership or its equivalent.
UPPER DIVISION PROGRAM:

|  |  | Quarter Hours$55-70$ |  |
| :---: | :---: | :---: | :---: |
| Subject Matter Specialization: |  |  |  |
| HFT 3403 | Management Accounting for the Hospitality Industry | 5 |  |
| LEI 3542 | Principles of Park and Recreation Management | 5 |  |
| LEI 3630 | Care and Maintenance of Grounds | 5 |  |
| LEI 3524 | Personnel Management in Parks and Recreation | 5 |  |
| MAN 3010 | Organization and Management | 5 |  |
| LEI 3437 | Program Development in Parks and Recreation Management | 5 |  |
| HFT 3434 | Club Operations Management | 5 |  |
| LEI 4590 | Seminar in Parks and Recreation Management | 5 |  |
| LEI 4940 | Internship | 15-30 |  |
| Advised Electives: |  | 20-35 |  |
| Students wil after con | 20-35 quarter hours of electives ion with their advisor. |  |  |

## GRADUATE PROGRAMS

The Division offers a Master of Science degree in Curriculum and Instruction with an emphasis in Health Education, Physical Education, or Parks and Recreation Administration. A minimum of 45 quarter hours is required to complete each program.

An applicant wishing to enroll in Health Education or Physical Education must: (1) have a 3.0 GPA in upper division work or score 1,000 or more on the Graduate Record Examination, and (2) possess or qualify for Florida Rank III certification in the area selected.

To enter the program in Parks and Recreation Administration, a student must: (1) have a 3.0 GPA in upper division work or score 1,000 or more on the Graduate Record Examination, and (2) possess a bachelor's degree, and have appropriate undergraduate preparation in recreation.
Note: Students who have already met the reading requirement as an undergraduate or through in-service education may substitute an elective for RED 6333 (See page 242)

HEALTH EDUCATION
Campus Location: Tamiami Campus only
DEGREE: Master of ScienceProfessional Education:
EDF 5481 Analysis and Application of Educational Research ..... 4
EDG 5325 Analysis of Teaching ..... 4
EDF 5216 Affective Learning in the Classroom ..... 4
RED 6333 Reading in the Secondary Schools ..... 4
Area of Specialization:
HES 5205 Current Concepts in Community Health ..... 4
HES 5327 Health Curricula in Public Schools ..... 4
HES 5326 Educational Approaches to Health Problems ..... 4
CLP 5185 Current Issues in Mental Health or ..... 5
SOC 5255 Sociology of Mental Health ..... 5
HUN 5890 Recent Research in Nutrition or ..... 4
HUN 5611 Nutrition Education in the Community ..... 421
Electives:

## PARKS AND RECREATION ADMINISTRATION

Campus Location: Tamiami Campus only
DEGREE: Master of Science
Quarter Hours
Professional Education: ..... 13
LEI 5510C Program Administration in Parks and Recreation ..... 4
LEI $5440 \quad$ Program Development in Parks, and Recreation ..... 4
PAD 6106 Organization Theory and Administrative Behavior ..... 5
Areas of Specialization:18-32
PAD 6417 Public Personnel Administration ..... 5
PAD 6227 Public Finance and the Budgetary Process ..... 5
LEI 5595 Seminar in Parks, Recreation, and Athletic Management ..... 4
LEI 5907 Individual Study ..... 1-5
Supervised Field Experiences in Parks and Recreation ..... 5-15
Electives: ..... 14

## PHYSICAL EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Master of Science
Quarter Hours
8
Professional Education:
EDF $5481 \quad$ Analysis and Application of Educational Research
RED 6333 Reading in the Secondary School
Area of Specialization:
32
PET 6535 Survey of Research in Physical Education 4
PET $4510 \quad$ Evaluation in Physical Education 4
PET 5238C Perceptual Motor Learning 4
PET 5256C Sociology of Sport 4
PET 5125 History of Sport 4
PET 5925C Creative Workshop in Physical Education 4
PET 5426 Curriculum Development in Physical Education 4
PET 5366C Sports Medicine* 4
PET 6932 Seminar in Physical Education 4
*Required by all graduate students not completing an undergraduate course in Physiology of Exercise.

## COURSE DESCRIPTIONS

DEFINITION OF PREFIXES
DAE-Dance Education: HES-Health Education Salety: LEI-Leisure; PEO-Physical Education; PET-Physical Education Theory

## HEALTH EDUCATION

## HES 4303L SPECIAL TEACHING LABORATORY: HEALTH EDUCATION

(5) (W)

This course is designed to develop competencies directly associated with classroom teaching. Students will be expected to demonstrate these competencies in a variety of public school situations.
HES 4001 HEALTHFUL LIVING: COMMUNITY Students will develop competencies in community health by identifying, observing, and discussing aspects of heaith that affect society. such as ecology and pollution.

## HES 4160 CRITICAL ISSUES IN HEALTH EDUCATION

(5) (S)

The student will develop competencies in distinguishing between and interpreting those aspects of health which appear to be most important to society, including legislative issues and public opinion.
HES 4940 STUDENT TEACHING
(15 (F,W,S)
During the student's internship he or she will demonstrate those competencies which are characteristic of a competent health education teacher.
HES 5205 CURRENT CONCEPTS IN COMMUNITY HEALTH
(4) (W)

Students will examine the attitudes of people with various social backgrounds, and discuss the ways in which these different attitudes relate to the formulation of community health programs.
HES 5326 EDUCATIONAL APPROACHES TO HEALTH EDUCATION
(4) (W)

Students will select various modern techniques and tools for teaching elementary health education, and employ these techniques and tools in a classroom setting.
HES 5327 HEALTH CURRICULA IN PUBLIC SCHOOLS
(4) (S)

Students will develop and analyze various health curricula and validate their appropriateness to various age groups.
HES 5908 INDIVIDUAL STUDY
(1-5) (F,W,S,SS)
Individuals work independently on health education topics of their choice under the direction of faculty members. Permission of the instructor and Division Chairperson is needed
HES 6943 SUPERVISED FIELD EXPERIENCE
(5-15) (F,W,S,SS)
A practical study pursued in an educatıonal environment at a university, agency or school approved by the laculty. Approval to enroll will be granted upon submission of an acceptable proposal stating objectives and desired outcomes of such an experience.

## PHYSICAL EDUCATION

PET 3202 PHYSICAL EDUCATION IN THE SECONDARY SCHOOL
(5) (W)

Students will study methods, philosophy and curriculum for physical education in secondary schools, grades 6-12. Field experiences will be required in addition to class work.
PET 3310 KINESIOLOGY
(5) (S)

This course is designed to provide students the opportunity to demonstrate in a teaching situation the application of various principles of movement.
PET 3360 EXERCISE PHYSIOLOGY
(5) (W)

Students will be expected to apply various aspects of the functioning of the human body to the development of physical education programs and the teaching of specific sport skills.
PET 3461 PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL
(5) (F)

Students will study methods, philosophy and curriculum for modern physical education in elementary schools. K-6. Field experiences will be required in addition to class work.

## PET 3640 C ADAPTED PHYSICAL EDUCATION

(5) (W)

Competencies to be achieved include both a physiological and psychological understanding of atypical children and the ability to apply this knowledge in practical situations.
PET 4230C MOTOR LEARNING
Students will demonstrate knowledge and application of the physiological and psychological factors aflecting motor skill acquisition and performance.

## PET 4430 PHYSICAL EDUCATION FOR PRIMARY GRADES

Designed to provide students with competencies necessary for the development and implementation of physical education programs in grades K-3. A three-hour per week field experience in an elementary school is required.

Designed io provide students with competencies necessary for the development and implementation of physical education programs in grades 4-6. A three-hour per week field experience in an elementary school is required
PET 4450 L SPECIAL TEACHING LABORATORY: PHYSICAL EDUCATION
(5) $(F, W)$

This course is designed to develop competencies directly associated with classroom teaching. Students will be expected to demonstrate these competencies in a variety of public school situations.
PEO 4014 COACHING SPORTS
Students will examine the philosophy, organization, and skills necessary for coaching interscholastic sports in an educational environment
PET 4622C ATHLETIC INJURIES
(5) (F)

Students will demonstrate knowledge of the proper care and prevention of athletic injuries through the application of acceptable training techniques.
PET 4945L STUDENT TEACHING
(15) (F,W,S)

During the student's internship he or she will demonstrate those competencies which are characieristic of a competent physical education teacher.
PET 4510 EVALUATION IN PHYSICAL EDUCATION
Students will demonstrate competencies in motor skill testing, grading, and analysis of written test scores necessary for successful teaching in physical education.
PET 5925 CREATIVE WORKSHOP IN PHYSICAL EDUCATION
(4) (W)

Students will create materials and teaching techniques for physical education. These materials and techniques will then be utilized in practical classroom situations.
PET 5238 PERCEPTUAL MOTOR LEARNING
(4) (S)

Students will demonstrate knowledge and understanding of various approaches to, and theories of, perceptual motor learning, with special emphasis in physical education. Perceptual motor tasks will be performed as well as taught by the students.
PET 5426 CURRICULUM DEVELOPMENT IN PHYSICAL EDUCATION
(4) (W)

Students will develop their own curricula after examining and discussing modern curriculum theory. A problem solving approach will be employed as students test their programs at various grade levels in the public schools.

## PET 5125 HISTORY OF PHYSICAL EDUCATION AND SPORT

Students will study the history of sport and will take part in writing their own review of sport from a chosen time in history
PET 5256 SOCIOLOGY OF SPORT
(4) (F)

Students will demonstrate a thorough understanding of the sociological bases of sport and will actively engage in a field study involving a particular phase of sport and society.
PET 5906 INDIVIDUAL STUDY
(1-5) (F,W,S)
Students will work independently on a topic concerning some phase of physical education or sport under the guidance of a laculty member. Registration is by permission of advisor.
PET 6944 SUPERVISED FIELD EXPERIENCE
(5-15) (F,W,S)
Students may use this course to become involved in an in-depth study, research project, or any one of a variety of other activities, under the guidance of a laculty member.
PET 6932 SEMINAR IN PHYSICAL EDUCATION
(4) (W)

Students will participate in the exploration, examination and discussion of problems, issues and trends in physical education and sport
PET 6535 SURVEY OF RESEARCH IN PHYSICAL EDUCATION
(4) (S)

Following a survey ol research in physical education, students will demonstrate competencies in applying this knowledge to teaching situations in the public schools.

## PARKS AND RECREATION

LEI 3542 PRINCIPLES OF PARK AND RECREATION MANAGEMENT
(5) (F)

An exploration of the field of recreation and parks including career areas. Students will be expected to demonstrate an understanding of management responsibilities and supervisory level principles and theory.
LEI 3630 CARE AND MAINTENANCE OF GROUNDS
(5) (W)

A study of procedures for maintaining outdoor lacilities. Students will be expected to display competence
in proper maintenance of areas normally lound in parks and recreation centers.
LEI 3631 TURF GRASS MANAGEMENT
(5) (F)

A practical approach to the care and maintenance of special grasses such as those found on golf courses and other recreational lacilities.
LEI 3524 PERSONNEL MANAGEMENT IN PARKS AND RECREATION
(5) (W)

After a study of human interaction in a management setting, students will demonstrate competencies necessary for hiring stafl, conducting group dynamics, communicating to the public, and administering democratically
LEI 3437 PROGRAM DEVELOPMENT IN PARKS AND RECREATION MANAGEMENT
(5) (S)

Students will altain competencies in developing objectives, planning a program, and implementing and administering the program

## LEI 4940 INTERNSHIP

(15) (F,W,S,SS)

An on-the-job training program designed to enable students to develop those competencies which can only be gained from practical experience.

# DIVISION OF VOCATIONAL EDUCATION 

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The Division prepares and services professional personnel whose major functions are to teach, coordinate, supervise, and administer vocational education programs in schools and other public and private agencies. Programs of preparation utilize a multi-school approach across academic disciplines within the University. The Division utilizes performance-based curricula to develop competencies at the undergraduate and graduate levels. In addition to formal degree programs, the Division offers courses for specific areas of certification in vocational teacher/administration certification.

## UNDERGRADUATE PROGRAMS

The Division offers undergraduate preparation leading to the degree of Bachelor of Science in Education with specialized majors in the following areas: Industrial Arts Education, Technical Education, Vocational Home Economics Education, Vocational Industrial Education. Although the programs are designed for entry into the field of public education, a candidate may seek employment in business, industry, or other private agencies.

Applicants for admission are required to have an associate's degree or equivalent course work. For specific entrance requirements, consult the general admission statement for undergraduate students in this catalog. Because of the wide range of entry level competencies and career goals, each student in consultation with his or her advisor plans a program of study during the first quarter of enrollment.

Programs in Health Related Occupations Education, Business Education, and Vocational Education/Handicapped are presently being planned for implementation. For specific information concerning these programs, contact the Division Chairperson.

## VOCATIONAL HOME ECONOMICS EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: Foundations of Education (10 quarter hours).
Recommended Courses: With reference to subject matter specialization, the student is required to have for certification 65 quarter hours in the areas listed below under Technical Preparation. These may be earned in courses in both the lower and upper divisions. It is recommended that as many of the basic courses in these areas as possible be taken in the lower division.
UPPER DIVISION PROGRAM:

50
EDF $3827 \quad$ Schooling in America
EDG 3321 General Teaching Laboratory I 5
EDG 3322 General Teaching Laboratory II 5
HEE 3302 Home Economics Educational Planning 5
RED 4325 Special Teaching Lab: Reading 5
HEE 4104 Instruction in Vocational Home Economics 5
HEE $4944 \quad \begin{gathered}\text { Special Teaching Laboratory: Home Economics } \\ \text { Education }\end{gathered}$
HEE 4941 Student Teaching: Home Economics Education 15
Technical Preparation: Total of 65 quarter hours needed from
lower and upper division:
Housing and Home Furnishing*
Management and Family Economics* 10
Family and Child Development* 15
Food and Nutrition** 15
Textiles and Clothing* 15
*Courses offered in the School of Technology
**Courses offered in the School of Health and Social Services
Advised Electives:
5
Sub-specialty area of concentration:
Competencies may be developed in one of the following six fields:

1. One area of consumer and homemaking education
One area of wage-earning home economics
2. Education for the culturally disadvantaged
3. Education for the adult learner
4. Educational settings in business, industry or public service agencies

## INDUSTRIAL ARTS EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: Foundations of Education (10 quarter hours).
Recommended Courses: With reference to the technical preparation outlined below the student in encouraged to take basic courses in each area in the lower division.
UPPER DIVISION PROGRAM:
Quarter Hours
Professional Education
EDF $3827 \quad$ Schooling in America
5
EDG 3321 General Teaching Laboratory I 5
EDG 3322 General Teaching Laboratoryll 5
EVT 3165C Course Planning in Vocational Education 5
RED 4325 Special Teaching Laboratory: Reading 5
EIA 4360 Instruction in Industrial Arts 5
Technical Preparation:
Required: A minimum of 45 quarter hours are required for certification, with a minimum of 10 quarter hours in each of the following areas:

## CONSTRUCTION

BCN 3702 Construction Technology 5
ETC 4252L Construction Processes 5
BCN 4251C Architectural Drafting 5

ETI3417C Manufacturing Technology 5
ETI 4421C Materials Processing 5
EDT 4525 C Drafting $\mid \quad 5$
or
ETD 4526C Drafting II 5
ETM 4823C Materials of industry 5
BCN 4033 Industrial Fiesearch and Development 5

## GRAPHIC COMMUNICATIONS

$\begin{array}{lll}\text { ARV 3210 } & \text { Reprographics } & 5 \\ \text { ARV 4250 } & \text { Planographics } & 5 \\ \text { ARV } 4150 & \text { Photographics } & 5\end{array}$
Photographics
5

## POWER

ETM 4407 Mechanical Power Systems I 5
ETE 4562 Electrical/Electronics Systems 5
ETE 3030 Survey of Electronics 5
ETM 4408 Mechanical Power Systems II 5
Advised Electives: Enough electives should be taken to equal a minimum of 90 quarter hours.

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: Foundations of Education (10 quarter hours).
Required Technical Preparation: Technical preparation in the student's intended area of teaching such as electronics technology, architectural technology, dental hygiene, commercial art, electronic data processing, electro-mechanical technology and other occupations requiring training beyond the twelfth grade or demonstration of competency via EVT 4990 listed below.
UPPER DIVISION PROGRAM:

|  |  | Quarter Hours |
| :--- | :--- | :---: | :--- |
| Professional Education | 5 | $\mathbf{7 3 - 8 3}$ |
| EDF 3827 | Schooling in America | 4 |
| EVT 5078 | Technical Education in American Society | 5 |
| EDG 3321 | General Teaching Laboratory I | 4 |
| ADE 5385 | Adult Teaching and Learning | 5 |
| EDG 3322 | General Teaching Laboratory II | 5 |
| EVT 3165C | Course Planning in Vocational Education | 5 |
| RED 4325 | Special Teaching Laboratory: Reading | $5-15$ |

    * For the student who lacks acceptable occupational
            experience in the area to be taught.
            or
        EVT \(4990 \quad\) Credit by Examination \(\quad\) 5-45
        EVT 5460 Educational Media
        5
        EVT 4941 Special Teaching Laboratory: TechnicalEducation5
    EVT 4940 Student Teaching: Technical Education ..... 15
Advised Electives: Science, mathematics, technology, psychology or sociology ..... 10
Free Electives: Enough electives should be taken to equal a minimum of 90 quarter hours ..... 10

## VOCATIONAL INDUSTRIAL EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: Foundations of Education (10 quarter hours).
Required Technical Preparation: Technical preparation in the student's intended area of teaching such as air conditioning and refrigeration, automotive repair, commercial foods preparation, cosmetology, electronics, machine shop trades and other trade and industrial occupations or demonstration of competency via EVT 4990 listed below.

## UPPER DIVISION PROGRAM:



## PROFESSIONAL CERTIFICATE PROGRAMS

The Division offers programs for Rank III and Rank II vocational professional certification. A student in any of these programs should enroll in the University as a professional certificate student in vocational education.

The Standard Certificate Rank III program in vocational teacher education is designed to qualify the practicing vocational education teacher for employment in comprehensive secondary schools, vocational skill centers, and/or technical institutes.

The Post Standard Protessional Certificate Rank II program in vocational teacher education is designed to extend to the practicing vocational education teacher certification for teaching in comprehensive secondary schools, vocational skill centers, and technical institutes.

## RANK III VOCATIONAL TEACHER CERTIFICATION EDUCATION

The Standard Certificate in Rank III (valid for 3 years) will be issued by the State Teacher Certification Office to an individual having: (a) three years full-time teaching experience in vocational industrial education subjects, and (b) 30 quarter hours in professional education and vocational teacher education courses. Specific requirements can be found in Section 42 of the State Teacher Certification Guide. Planned programs of preparation completed for certification requirements may be applied to degree requirements.

RECOMMENDED PREPARATION RANK III VOCATIONAL TEACHER CERTIFICATION
Quarter Hours
Required courses: Foundations of Education (10 quarter hours) Professional Vocational Education:
EVT 3065
EVT 3165 C
EVT 3815 C
EVT 4365 C
EVT 5766

Foundations of Vocational Education
Certificate
Area
A 5
Course Planning in Vocational Education (suggested second course in sequence)

B 5
Vocational Education Laboratory Management and Safety

C 5
Instructional Processes in Vocational and Technical Education (suggested first course in sequence)
Evaluation in Vocational and Technical Education
B 4

POST STANDARD RANK II VOCATIONAL TEACHER CERTIFICATION EDUCATION
The Post Standard Certificate in Rank II (valid for 10 years) will be issued by the State Teacher Certification Office to an individual who (a) has completed 30 quarter hours required in Rank III vocational teacher certification courses, and (b) has been employed as a teacher in public or non-public schools in Florida for three years, and (c) earned 54 quarter hours of college credit in vocational teacher education and general education and/or general professional education and/or technical education courses

The 54 quarter hours of course work is planned so that (a) a minimum of 18 and a maximum of 27 quarter hours are earned in professional vocational education courses, and (b) a minimum of 18 and a maximum of 27 quarter hours are earned in general education or general professional education and/or technical education courses. A candidate is urged to consult with a Division advisor to formulate a program of study for approval by the State Teacher Certification Office prior to starting his or her program.

## GRADUATE PROGRAMS

The Division offers graduate course work leading to the degree Master of Science in Education in Curriculum and Instruction, and Administration and Supervision in Vocational Education.

Requirements for admission to the graduate program in either Curriculum and Instruction or Administration and Supervision for Vocational Education are: the applicant must hold an appropriate Rank III Florida Teaching Certificate and (1) have an upper division un-
dergraduate grade point average of 3.0 (" $B$ "), or (2) have a combined score of 1,000 on the Graduate Record Examination, (GRE) (verbal and quantitative aptitude sections), or (3) for vocational-industrial and technical education programs only, have a combined score of 2250 on the general examination of the "College Level Examination Program" (CLEP), with a minimum score of 400 on each section.

Students are urged to contact the Admission Office or the Division for further information.
Areas of emphasis available, along with typical program of study, follow here.
Note: Students who have already met the reading requirement ( p .160 ) as an undergraduate or through in-service education may substitute an elective for RED 6333.

## VOCATIONAL HOME ECONOMICS EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Master of Science

|  |  |  | Hours |
| :---: | :---: | :---: | :---: |
| Required Core: |  |  | 20-24 |
| HEE 5335 | Trends in Vocational Home Economics Education | 4 |  |
| EVT 5168 | Curriculum Development in Vocational Education | 4 |  |
| HEE 6915 | Research in Home Economics Education | 4 |  |
| HEE 6126 | Teaching Home Economics in the Secondary School | 4 |  |
| HEE 6937 | Seminar in Home Economics Education | 4 |  |
| RED 6333 | Teaching Reading in the Secondary School | 4 |  |
| Area of Professional Emphasis: With program advisor's approval, a student may select courses in subject matter of Home Economics chosen from offerings outside of the School of Education, based on professional competencies needed. |  |  |  |
| Electives: The candidate will be encouraged to make selections on the basis of individual needs and career goals. |  |  | 6-10 |

## VOCATIONAL INDUSTRIAL EDUCATION

Campus Location; Tamiami Campus only
DEGREE: Master of Science
Quarter Hours
Required Core:
EVT 5669 Trends and Issues in Vocational Education 4
EVT 5168 Curriculum Development in Vocational Education 4
EVT 5766 Evaluation in Vocational and Technical Education 4
EVT 6760 Research in Vocational Education 4
EVT 6930 Seminar in Vocational Education 4
RED 6333 Teaching Reading in the Secondary School 4
Area of Professional Emphasis: A student under the direction of his or her
advisor, may develop professional competencies in his or her area
of emphasis through school-based field experiences, seminars,
methods courses, workshops, or independent study.
Technical Electives: The candidate will be encouraged to select courses that
will increase his or her subject area technical competence.

## TECHNICAL EDUCATION

Campus Location: Tamiami Campus only<br>DEGREE: Master of Science

|  |  | Quarter Hours |
| :---: | :---: | :---: |
| Required Core: |  | 20-24 |
| EVT 5669 | Trends and Issues in Vocational Education | 4 |
| EVT 5168 | Curriculum Development in Vocational Education | 4 |
| EVT 5766 | Evaluation in Vocational and Technical Education | 4 |
| EVT 6760 | Research in Vocational Education | 4 |
| EVT 6930 | Seminar in Vocational Education | 4 |
| RED 6333 | Teaching Reading in the Secondary School | 4 |
| Area of Professional Emphasis: |  | 8 |
| EVT 5078 | Technical Education in American Society | 4 |
| ADE 5385 | Adult Teaching and Learning | 4 |
| Technical Electives: |  | 8-13 |
| The candidate will be encouraged to select courses that will increase his or her subject area technical competence. |  |  |
| Advised Electives for Non-education Graduates: |  | 8-10 |
| EDF 5710 | National Educational Systems: A Comparative Analysis (4) | 4-5 |
| or |  |  |
| $\begin{gathered} \text { SOC } 5284 \\ \text { and } \end{gathered}$ | Sociology of Education (5) |  |
| EXP 5406 | Theories of Learning (5) |  |
| $\begin{aligned} & \text { or } \\ & \text { EDF } 6215 \end{aligned}$ | Application of Learning Theory to Instruction (4) | 4-5 |
|  |  | 45 |
| INDUSTRIAL ARTS EDUCATION |  |  |
| Campus Location: Tamiami Campus only |  |  |
| DEGREE: Master of Science |  |  |
| Required Core: |  | Quarter Hours |
|  |  | 20-24 |
| EVT 5669 | Trends and Issues in Vocational Education | 4 |
| EVT 5168 | Curriculum Development in Vocational Education | 4 |
| EVT 5766 | Evaluation in Vocational and Technical Education | 4 |
| EVT 6760 | Research in Vocational Education | 4 |
| EVT 6930 | Seminar in Vocational Education | 4 |
| RED 6333 | Teaching Reading in the Secondary School | 4 |
| Area of Professional Emphasis: |  | 12-16 |
| EIA 5811 | Equipment and Facilities Planning | 4 |
| EIA 6931 | Analysis of Industrial Arts Education | 4 |
| The student, under the direction of his or her advisor, may develop professional competencies in an area of emphasis through seminars, methods courses, workshops, or independent study, |  |  |
| Technical Electives: The student is encouraged to select courses that will increase his or her subject area technical competence. |  | 5-10 |
|  |  | 45 |

## INDUSTRIAL ARTS EDUCATION

Campus Location: Tamiami Campus only
DEGREE: Master of Science

## ADMINISTRATION AND SUPERVISION OF VOCATIONAL EDUCATION

## Area of Emphasis: Vocational Education

Admission to graduate programs in the Division requires adherence to the general standards as specified in the Admission Requirements for Graduate Students in this Division. In addition, an applicant must have completed at least one (1) year of successful teaching experience as a teacher of vocational education classes. Under certain conditions, an applicant
not meeting the minimum requirements, and who has appropriate professional background and aspirations, may be considered on an individual basis by the Division faculty.

Each graduate student, in consultation with his or her advisor, plans a program of study to include a core of professional competencies, an area of emphasis, and electives. The programs require a minimum of 45 quarter hours.
Campus Location: Tamiami Campus only
DEGREE: Master of Science


## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

EDG-Education: General; EEX—Education: Exceptional Child, core competencies; EIA-Education: Industrial Arts; EVT-Education: Vocational/Technical; HEE-Home Economics Education; HES-Health, Education, and Safety.

## VOCATIONAL EDUCATION

EEX 4882 LABORATORY ACTIVITIES FOR TEACHERS OF THE HANDICAPPED (5) (F)
Competency: The use of projects, tools, materials, and equipment to facilitate training the occupationally and physically handicapped and mentally retarded.
EVT 3065 FOUNDATIONS OF VOCATIONAL EDUCATION
(5) $(F, S)$

Competency: A knowledge of the history of vocational education on the national, state, and local levels.
EVT 3165C COURSE PLANNING
(5) $(F, W, S)$

Competency: Basic knowledge and skill in analyzing, planning, and organizing bodies of knowledge for instructional purposes.
EVT 3815C VOCATIONAL EDUCATION LABORATORH MANAGEMENT AND SAFETY
(5) (W)

Competency: Knowledge and skill in analyzing, planning, organizing, and controlling laboratory environments and student's safe learning activities.
EVT 4365 C INSTRUCTIONAL STRATEGIES AND EVALUATION IN VOCATIONAL AND TECHNICAL EDUCATION
Competency: Knowledge and skill in analyzing, planning, developing, executing, and evaluating classroom and laboratory teaching and learning activities.
EVT 4668 EMERGING EMPHASIS IN CAREER EDUCATION
Competency: A knowledge of current trends and issues in reference to developing and integrating career education into current elementary and secondary educational programs.
(1-5) (maximum 10 hrs.$)$ (ARR)
Competency: The ability to identily, research, and report on a special problem of interest to the student. Subject to approval ol program advisor.

Competency: Utilization of instructional knowledges, attitudes, and skills in a variety of instructional situatıons in the vocational educatıonal settıng. Prerequisite: EDG 4941.
EVT 4941 SPECIAL TEACHING LABORATORY: VOCATIONAL INDUSTRIAL EDUCATION AND TECHNICAL EDUCATION
(5) (F,W)

Competency: Knowledge of institutional structure, organization, policies, and roles of school personnel, with actual leachıng experience in areas of specialization. Prerequisites: EDG 3321, EDG 3322.
EVT 4949 SUPERVISED OCCUPATIONAL EXPERIENCES (5-15) (ARR)
Competency. Occupational skill developed via field based work-experience in industry, business, or a government agency in the occupation in which the student is preparing to teach.
EVT 4990 CREDIT BY EXAMINATION
(5-45) (ARR)
Competency: Technical knowledge and skills in an occupational area such as trade, industry, health, and technology. as certılied by recognized professional examinations such as the National Occupational Compelency Test Credits cannol be used in lieu of upper division professional program courses.
EVT 5067 COOPERATIVE VOCATIONAL EDUCATION PROGRAMS
(4) (F)

Competency: Knowledge and skill in the basic philosophy, principles, and processes and procedures of the cooperative method in vocational and technical education.
EVT 5078 TECHNICAL EDUCATION IN AMERICAN SOCIETY
(4) (W)

Competency Knowledge of the basic role and current status of technical education in an industrial democracy
EVT 5168 CURRICULUM DEVELOPMENT IN VOCATIONAL EDUCATION
(4) (W)

Competency: Basic knowledge and skill in analyzing, planning, organizing and developing curriculum in an area ol specialization.
EVT 5265 SUPERVISION AND COORDINATION OF VOCATIONAL EDUCATION PROGRAMS (4)(F) Compelency: Knowledge and skill in the supervision of personnel, and the coordination of work to achieve institutional goals.
EVT 5389 TEACHING CAREER RELATED ACTIVITIES
(5) (W,SS)

Competency: Integration and articulation of career concepts and activities with regular curriculum.
EVT 5460 EDUCATIONAL MEDIA
(5) (F,W,S,SS)

Competency: Knowledge and skill in selecting, developing and utilizing instructional media forms to communicate or demonstrate concepts.
EVT 5461 COMMUNITY RELATIONS AND RESOURCES FOR VOCATIONAL EDUCATION
(4) (S)

Competency: Knowledge and skill in developing and utilizing community resources and establishing public relations procedures and practices to implement vocational education programs.
EVT 5669 TRENDS AND ISSUES IN VOCATIONAL EDUCATION
(4) $(F, S)$

Competency: A knowledge of the basic philosophical and curricular trends and issues in vocationaltechnical education at the international. national, state, and local levels.
EVT 5766 EVALUATION IN VOCATIONAL AND TECHNICAL EDUCATION
Competency: Knowledge and skills in the use of tests and measurements, to evaluate teaching and learning elfectiveness and the validity of objectives.
EVT 5905 INDIVIDUAL STUDY
(1-5) (ARR)
Competency: The ability to identify, research, and report on a special problem of interest to the student. Subject to approval of program adviser.
EVT 5925 WORKSHOP IN VOCATIONAL EDUCATION
Competency: Selected competencies related to Instructional and technical areas.
EVT 6264 ADMINISTRATION OF VOCATIONAL EDUCATION PROGRAMS
Competency: Knowledge of the principles, practices, functions, and roles of administration, in the operaCompetency: Knowledge of the principles, practices, functions, and roles of administration, in the opera-
tion of vocational education programs.
EVT 6760 RESEARCH IN VOCATIONAL EDUCATION
(4) (S)

Competency: Knowedge and skill in identifying, defining, collecting, analyzing, and synthesizing research-related problems in vocational and adult education
EVT 6925 GRADUATE WORKSHOP IN VOCATIONAL EDUCATION (1-10) (APR) Competency: Selected competencies related to protessional and program areas

## EVT 6930 SEMINAR IN VOCATIONAL EDUCATION

(2-4) (W)
Competency: The application of knowledges and skills to solve special instructional, curricular and/or administrative and supervisory problems and issues in vocational education.
EVT 6946 SUPERVISED FIELD EXPERIENCE
(4-8) (APR)
Competency: Application and relinement of competencies in either classroom, laboratory, or administration and supervision. via school-based field experiences. Placement is subject to approval of program advisor.
HES 4280 OCCUPATIONAL SAFETY AND HEALTH (OSHA)
(5) (S)

Competency: Knowledge of the history, implications, and applications of the Occupational Safety and Health Act of 1970. For vocational and technical teachers, industrial employees, and management personnel.

## INDUSTRIAL ARTS EDUCATION

EIA 4042 THE ROLE OF INDUSTRIAL ARTS IN THE SCHOOLS
Competency: Knowledge of the basic philosophy, goals, programs, principles, practices and learning environments in industrial arts. and the realtionship of industrial arts to other school disciplines.

## VOCATIONAL HOME ECONOMICS EDUCATION

HEE 3302 HOME ECONOMICS EDUCATIONAL PLANNING
Competency: Development and adaplation of curriculum and strategies for the presentation of vocational home economics content in a variety of educational seltings.
HEE 4104 INSTRUCTION IN VOCATIONAL HOME ECONOMICS
Competency: Ability to apply educational principles, practices and techniques to teaching home economics in varied educational environments. Prerequisite: EDG 3321.
HEE 4944 SPECIAL TEACHING LABORATORY HOME ECONOMICS
(5) $(W, S)$

Competency: Knowledge of the educational institution, and utilization of teaching skills, via mini-teaching experiences within areas of home economics in selected institulions. Prerequisites: EDG 3321, EDG 3322. HEE 3302. HEE 4104.

HEE 4941 STUDENT TEACHING IN HOME ECONOMICS EDUCATION
(15) (F,S)

Competency: The utilization of instructional knowledges, attitutes, and skills in vocational home economics education instructional situations. Prerequisites: HEE 3301, HEE 4014, HEE 4944.
HEE 5335 TRENDS IN VOCATIONAL HOME ECONOMICS EDUCATION
Competency: Knowledge of current social, economic, and educational issues affecting the field of vocational home economics. Subject to approval of program adviser.
*HEE 5360 TEACHING CHILD DEVELOPMENT
*HEE 5361 TEACHING CONSUMER EDUCATION AND FAMILY ECONOMICS
*HEE 5362 TEACHING CLOTHING AND TEXTILES
*HEE 5363 TEACHING FAMILY LIFE EDUCATION
*HEE 5364 TEACHING HOUSING AND HOME FURNISHINGS
*HEE 5365 TEACHING FOOD AND NUTRITION
HEE 5905 INDIVIDUAL STUDY
(1-5) (F,W,S,SS)
Competency: The ability to identify, research, and report on a special problem in vocational home economics. Subject to approval of program adviser.
HEE 5927 SPECIAL. WORKSHOP - HOME ECONOMICS
Competency: Skill in developing, organizing, teaching, evaluating, and administering programs related to specilic aspects of the home economics education. Subject to approval of program adviser.
HEE 6126 TEACHING HOME ECONOMICS IN THE SECONDARY SCHOOL
Competency: Knowledge of current and evolving methods, programs, and materials to teach and evaluate home economics. Prerequisite: EVT 5168 or permission of instructor.
HEE 6915 RESEARCH IN HOME ECONOMICS EDUCATION
Competency: The analysis and application of research pertaining to philosophy, curriculum, evaluations, and teacher education in home economics.
HEE 6937 SEMINAR IN HOME ECONOMICS EDUCATION

- Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational melhods.


## SCHOOL OF HEALTH AND SOCIAL SERVICES

The School of Health and Social Services offers eight programs, listed below, each of which leads to a Bachelor of Science degree in the major program of study. The criminal justice program and the dietetics and nutrition program offer a Master of Science degree. A Master of Science degree program in Social Work is in the planning stage.

The School of Health and Social Services emphasizes experiential programs geared toward meeting the total needs of the individual whose primary focus is on preventive health, social welfare services, or the criminal justice system. The goal is client-centered care, directed toward meeting the psychosocial, physical and rehabilitative needs of the individual and the family unit. Emphasis is placed on the achievement of high level wellness of each individual; and on development of a community-oriented approach to the solution of problems. Thus, the School of Health and Social Services considers health and social services inseparable - truly allied fields.

The educational program in the School of Health and Social Services provides the opportunity to be trained in an interdisciplinary manner within a team-oriented environment, which parallels the responsibility and level of practice expected of professional personnel in the occupational market place. Students enrolled in the various programs of the School of Health and Social Services will receive an enriched program of studies in a broad general education course sequence, core courses common to all helping professions, and specialized professional courses. A clinical affiliation program is given concurrent to theoretic courses, seminars, workshops and laboratory-oriented experiences, with specific clinical training and field practice which often takes the form of internships at advanced levels in agencies in Florida and in other states.

## PROGRAMS

CRIMINAL JUSTICE - Prepares practitioners with a scientific and scholarly blend of social, cultural, behavioral, political and legal learning experiences, as they relate to our justice system. The program also offers a Master of Science degree in criminal justice. (Tamiami and North Miami Campuses.)

DIETETICS AND NUTRITION - Prepares practitioners to protect the health of the nation by developing expertise in the composition of foods, their biological and physiological functions, and their preparation for utilization. The undergraduate program is fully accredited by the American Dietetic Association. The program also offers a Master of Science Degree in dietetics. (Tamiami and North Miami Campuses.)

HEALTH SCIENCE - Prepares persons to function in several capacities in the health care delivery system. The program contains four options or tracks:

1) The health science management track prepares persons to work in supervisory or middle management positions in hospitals, family health centers, federal health agencies, nursing homes, etc.
2) The education track is designed for students interested in becoming involved in educational processes within health care organizations. This program does not prepare one for teacher certification.
3) The general track allows the student to mold the curriculum around specific career needs.
4) The medical records administration track.
(Tamiami and North Miami Campuses)
MEDICAL TECHNOLOGY - Prepares laboratory professionals to conduct the many laboratory tests utilized to aid physicians and others in the diagnosis and treatment of patients. The program is fully accredited by the National Accreditation Agency for Clinical Laboratory Sciences. This track within the Health Science program offers a Bachelor of Science degree in Health Science. (Tamiami Campus)

[^3]around the use of the nursing process within a transcultural framework to assist man to increase the effectiveness of his adaptive responses and promote positive movement along the health-illness continuum
*(New admissions to the nursing program are not being accepted pending phaseout of existing program by June 1979 and the development of a new program.) (Tamiami Campus.)

OCCUPATIONAL THERAPY - Prepares therapists for medical care and rehabilitation of persons with physical and mental illnesses. Occupational therapy is oriented toward helping the individual to remain healthy. The therapist employs purposeful activities in a restorative program for the sick and disabled. The program is accredited by the American Occupational Therapy Association and the American Medical Association. (Tamiami Campus.)

PHYSICAL THERAPY - Prepares practitioners to work with persons born with a disability or disabled by illness or accident. Therapists plan and implement initial and subsequent treatment programs, on the basis of test findings, and upon the referral of a licensed physician. The program is accredited by the American Physicial Therapy Association and the American Medical Association. (Tamiami Campus.)

SOCIAL WORK - Prepares practitioners to help solve individual, family, group and community probiems, by providing such practitioners with an understanding of major social issues. The emphasis of the program is on the development of skills needed to initiate and implement sociai policy. The program is accredited by the Council of Social Work Education. (Tamiami and North Miami Campuses.)

## I. ADMISSION REQUIREMENTS: UNDERGRADUATE

As part of the 90 quarter hours of lower division coursework, the student is required to have either:
(1) An Associate of Arts or an Associate of Science Degree, or
(2) 90 Quarter hours of collegiate credit from an accredited institution at an acceptable performance level, and including general education requirements.

## ADMISSION REQUIREMENTS: GRADUATE

The admission policies for the graduate programs in criminal justice and dietetics and nutrition are described in the appropriate program sections of this Catalog.
NOTE: Due to the professional and specialized nature of the programs within the School, a student may be admissable to the University but not to a particular program. For program prerequisites, see specific program listings or contact the Office of the Dean.

## II. ADVISEMENT

A student is assigned a faculty advisor upon being admitted to a program and together the student and the advisor pian the student's program of study. The advisement program for the School is coordinated through the Dean's Office. Students needing pre-advisement may call the Dean's Office at the Tamiami Campus or North Miami Campus.

## III. CLINICAL AND FIELD EXPERIENCES

As an integral part of the program curriculum, the student is provided supervised learning experiences in community service agencies. The clinical and field work experience is one of orientation, observation and practice in the delivery of health and social services, and is structured concurrently with relevant classroom experiences. Over 150 community organizations in Florida and other states provide opportunities for student internship, field practice and clinical experiences.

## IV. THE EXTERNAL DEGREE PROGRAM

The external degree program is a self-directed non(campus)residential program for residents of Florida. The program enables the student to take advantage of all educational resources throughout Florida, without requiring his or her residence on any campus. On admission, the student's previous academic training and life experiences are summarized; and individual study plans are designed for each student in the form of an educational contract.

Only the Criminal Justice and Health Science programs offer the external degree option and should be contacted for further information.

## V. CONTINUING EDUCATION AND SPECIAL PROGRAMS

The School, in cooperation with the Division of Continuing Education, offers many credit courses in Off-Campus locations in Dade, Broward and Monroe Counties.

## VI. GRADING SYSTEMS

Course work in the School of Health and Social Services is graded A, B, C, D, F, CR, NC. Certain clinically oriented courses award a grade of CR or NC (CR: credit; NC: no credit).
Individual programs may have specific requirements regarding grades earned in required program of study courses.

Undergraduate students must maintain an overall grade point average of 2.0 in order to graduate. Graduate students must maintain an overall grade point average of 3.0 in order to graduate.

## CRIMINAL JUSTICE

Ralph Lewis, Associate Professor and Acting Chairperson<br>Robert Clark, Associate Professor<br>Bruce Hamersley, Associate Professor<br>Jose Marques, Associate Professor<br>Regina Shearn Perry, Associate Professor<br>Robert Snow, Associate Professor

William Wilbanks, Associate Professor<br>Harcourt Clark, Assistant Professor<br>Charles Johnson, Assistant Professor<br>Luis Salas, Assistant Professor<br>Ronald Schneider, Assistant Professor<br>Jack Tuckfield, Assistant Professor

Criminal Justice is an area of study dealing with the formal mechanisms of social control by which our society exercises constraint over its members. The study of criminal justice is an interdisciplinary one; i.e., it involves law and the social/behavioral sciences. It is concerned with the primary means of social control - the law. It involves the study of crime, the reaction of society to this major social issue, and the instrumentalities utilized in treating the problem. Heavily intertwined throughout the entire approach is the pervading issue of social justice.

A wide variety of career opportunities are available in criminal justice at all levels of government. Due to its interdisciplinary approach, the study of criminal justice fills the needs of students seeking careers in teaching, research, law, and the various criminal justice occupations.
Campus Location: Tamiami and North Miami Campuses
DEGREE: Bachelor of Science in Criminal Justice
LOWER DIVISION PREPARATION:
Required Courses: None
Remark: The student majoring in Criminal Justice should consult with an academic advisor to ensure that the actual courses selected (1) meet program and degree requirements, and (2) are consistent with the individual's long range academic and career objectives.

Recommended Courses: 1. The student intending to enroll in the Criminal Justice Program is urged to complete an Associate of Arts Degree at the lower division. An entering student is not required to have been enrolled in a pre-criminal justice program. A student having an Associate of Science degree or 90 quarter hours will also be accepted, but must complete general education requirements before the bachelor's degree can be awarded.
UPPER DIVISION PROGRAM:
Core Courses: Six courses are required for every student in Criminal Justice. A core course requirement can only be waived by the Chairperson with the recommendation of the student's faculty advisor.
These courses are:
CCJ 3020
CCJ 3600

Area of interest: 20 quarter hours at the 300 level or above in criminal justice are required for criminal justice majors. Only 10 quarter hours of CCJ 4940 will count toward this requirement.
Specific electives: 15 quarter hours at the 300 level are required in sociology-anthropology, social work, psychology, political science, computer science or statistics. Any combination of these courses is acceptable.
General Electives: 25 quarter hours are required. No more than 15 hours can be criminal justice courses. Relevancy of elective courses will be determined in consultation with the student's advisor or the Chairperson. The faculty retains the prerogative to accept or reject electives taken without approval.

## CRIMINAL JUSTICE PROGRAM

Core Courses:
CCJ 3020 Overview of Criminal Justice Systems 5
CCJ 3100 Law Enforcement Systems 5
CCJ 3290 Judicial Policy Making 5
CCJ 3300 Correctional Philosophy 5
CCJ $3600 \quad$ Nature and Causes of Crime 5
CCJ $3700 \quad$ Methods of Criminal Justice Research 5
Area of Interest: See explanation above 20
Specific Electives: See explanation above 15
General Electives: See explanation above 25

## PROGRAM HONORS:

Students may qualify for program honors if they meet the University academic honors requirements and have a GPA of 3.5 in their criminal justice courses. Students may qualify for program high honors if they meet University honors requirements for high honors, have a GPA of 3.75 in the criminal justice courses, and orally present a paper from CCJ 4910 to a faculty committee. Any student applying for these awards must take all of his/her criminal justice courses at FIU. Those applying for program honors must complete an application before the end of the second week of the quarter in which graduation is expected. Candidates for high honors must complete an application by the end of the third week of the second quarter before graduation.

The CCJ 4910 paper must be completed by the end of the second quarter prior to graduation. This means that CCJ 4910 cannot be taken the last quarter if it is to be used for the purposes of obtaining high honors.

Anyone intending to apply for high honors must interest a designated faculty member in accepting him/her as an enrollee in CCJ 4910 for this purpose. An Approval Form for Independent Study can be obtained from the program office by a candidate before requesting consideration as a prospective high honors student.

## TRANSFER CREDIT

A student transferring from a four year college may transfer up to 130 quarter hours into the Criminal Justice Program; however, the student must still have 90 quarter hours at the 3000 level or above. All work transferred to FIU is subject to review and approval by the Criminal Justice Chairperson. Courses completed with a grade of "D" will not be transferred.

## DOUBLE MAJORS AND DEGREES

Students must complete the core courses ( 30 hours) plus 20 additional hours in Criminal Justice in order to:

1) Satisfy Criminal Justice requirements for a double major
2) Obtain a second degree with a major in Criminal Justice
3) Obtain two baccalaureate degrees simultaneously (provided requirements for two majors have been completed as certified by the appropriate academic units, and a minimum of 45 appropriate quarter hours beyond the requirements of one degree have been earned).

## CRIMINALISTICS-CHEMISTRY PROGRAM

Criminalistics-Chemistry Core Requirements:
Same as requirements for a bachelor's degree in chemistry. (Degree granted by Deparıment of Physical Sciences).
Chemistr;' Electives: If the student chooses the BA degree in Chemistry, he/she should elect at least one of the fllowing:

| CHM $4490 \quad \begin{array}{l}\text { Advanced Spectroscopy and } \\ \text { Molecular Structure }\end{array}$ |
| :---: | :---: |

CHM 4130, 4130L Modern Analytical Chemistry 7
Internship:
A 5-10 credit internship in the laboratory of a participating criminal justice agency.
Criminal Justice Coursework:
The student should elect 15 credits of criminal justice courses in consultation with an advisor in the Department of Criminal Justice.
Electives:
Coursework in the behavioral and political sciences, as well as upper division coursework in the biological sciences, is recommended to total 90 quarter hours.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIX

CCJ-Criminology and Criminal Justice.

## CRIMINAL JUSTICE CORE COURSES

CCJ 3020 AN OVERVIEW OF CRIMINAL JUSTICE SYSTEMS
A survey of the agencies and processes involved in the administration of justice. Interrelationships and functions of the legislature, police, prosecutor, defender, courts, and corrections are examined.
CCJ 3100 LAW ENFORCEMENT SYSTEMS
A conceptual study of the American police system
CCJ 3290 JUDICIAL POLICY MAKING
An analysis of judicial systems and their legal, social and political environments. Interrelationships between the prosecutorial and other criminal justice substructures will be examined.
CCJ 3300 CORRECTIONAL PHILOSOPHY, THEORY AND PRACTICE
Appraisal of correctional methods utilized in the United States and other countries. Prisons, probation, parole, work-release programs, half-way houses, community-based correction programs and other techniques are analyzed.
CCJ 3600 THE NATURE AND CAUSES OF CRIME
Social, cultural, behavioral, political and economic causitive factors in the development of crime. Psychological and sociological considerations involved in criminal behavior. The role of the legislature as policy maker in criminalizing conduct, and the limits of the criminal sanction.
CCJ 3700 METHODS OF CRIMINAL JUSTICE RESEARCH
Elements of scientific perspective, interaction of research theory and practice. Research design, data collection, analytic and statistical techniques, use of data processing resources, and preparation of research reports.

## ELECTIVES

## CCJ 3270 CRIMINAL PROCEDURE

An in-depth study of the 4th through 8th Amendments of the Constitution, and their impact on the criminal justice process.

Study of the rules of criminal procedure and evidence affecting the responsibilities of court administrators. Administrative relationships of courts with agencies involved in the criminal justice system will be examined
CCJ 3320 COMMUNITY BASED TREATMENT
An examination of the various pre-trial and post-trial community based treatment programs. A special emphasis will be placed on the impact these programs have upon the criminal justice system and the clients they serve.

## CCJ 3340 CORRECTIONAL COUNSELING

A course designed to explore the nature and function of counseling within the correctional setting.

## CCJ 3341 CORRECTIONAL TREATMENT

A concentrated study of the various institution-based treatment programs. Emphasis is on the impact and operational aspects of these programs.
CCJ 3450 INSTITUTIONAL ORGANIZATION AND ADMINISTRATION
Analysis of internal organizational structure and executive roles and functions in criminal justice agencies. Examines administrative and managerial concepts underlying decision making, policy formulation, operational strategies, and coordination and control procedures. Cases and outside research reports are used for specific analysis.

## CCJ 3460 MANAGEMENT OF HUMAN RESOURCES

Analysis of criminal justice manpower input problems - recruitment, selection, placement, training, development and control at all levels. Emphasis is on policy issues, research findings, and advanced techniques.
CCJ 3461 DEVELOPING INTERPERSONAL COMMUNICATION
The emphasis of this course is on the development of interpersonal communication practices that can be effectively utilized in a helping role and on the job, to improve interaction among employees and between the employees and the public.

## CCJ 3470 CRIMINAL JUSTICE PLANNJNG

Planning methods applicable to criminal justice agencies are examined. Emphasis is on planning as a decision making process lor criminal justice agencies. Theories, techniques, and applications studied.
CCJ 3530 DELINQUENCY PREVENTION AND CONTROL
Social dimensions of juvenile delinquency, its nature, scope and distribution. Comparison and analysis of agencies of control and prevention.
CCJ 3934 CONTEMPORARY ISSUES IN CRIMINAL JUSTICE
An extensive examination of selected contemporary issues in criminal justice. May be repeated.
CCJ 3949 COOPERATIVE EDUCATION IN CRIMINAL JUSTICE
Supervised full time work quarter for criminal justice academic majors who demonstrate their interest in and potential for developing practical field agencies experience. Limited to students admitted to Co-op program with consent of advisor. Prerequisite: third quarter academic standing.

## CCJ 4130 POLICE-COMMUNITY RELATIONS

A study of the concept of police-community relations, emphasizing the police role in community tension and conllict.

## CCJ 4250 CRIMINAL JUSTICE AND THE CONSTITUTION

A study of constitutional issues as they relate to the administration of criminal justice.
CCJ 4280 LAW AND CRIMINAL JUSTICE
The resolution of criminal justice problems through the application of the law. The nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.

## CCJ 4281 LEGAL ASPECTS OF CORRECTIONS

This course addresses the investigation of legal problems of prisoners, from conviction to release. Emphasis will be placed on the legal problems involved in presentence investigations, sentencing, probation, parole, incarceration, and loss and restoration of civil liberties.

## CCJ 4330 PROBATION AND PAROLE

An examination of the treatment of convicted law violators by the correctional field services, before and after prison.

## CCJ 4400 METHODS OF INSTITUTIONAL CHANGE

Analysis of evolutionary and revolutionary changes in political institutions and agencies. Means, methods and techniques for initiating and implementing meaningful change within the criminal justice system.

## CCJ 4440 ADMINISTRATION OF CORRECTIONAL INSTITUTIONS

Theories and techniques of administering correctional institutions: treatment, security, and custody.
Social structure of the prison community and inmate social systems. Case studies.

## CCJ 4462 HUMAN RELATIONS TRAINING

An experience based course that will prepare selected students to present human relations training programs in criminal justice agencies.

## CCJ 4949 COOPERATIVE EDUCATION IN CRIMINAL JUSTICE

Supervised lull time work quarter for criminal justice academic majors who demonstrate their interest in and potential for developing practical field agencies experience. Limited to students admitted to Co-op Program with consent of advisor. Prerequisite: Senior academic standing.

## CRIMINAL JUSTICE

GRADUATE PROGRAM
The Master of Science degree program in Criminal Justice is a professional program designed to prepare students for management responsibilities in the criminal justice sector or public sector related activities.

The objectives of the master's program are:

1. To provide present and future criminal justice managers with the skills needed to function effectively in our ever-changing society.
2. To serve as a catalyst for interdisciplinary research and study of criminal justice and related problems.
3. To provide the criminal justice system with qualified students for academic careers in administration, planning and analysis, and teaching in colleges and universities.
The minimum academic requirement for admission to the criminal justice master's program is graduation from an accredited baccalaureate program. Although it is helpful, students need not have had any formal coursework in criminal justice. Competent students from any major field of study are eligible for admission. After initial counseling, a determination will be made regarding any need for remedial course work.

Students having a bachelor's degree from an accredited institution and a "B" average or better for the last two years of undergraduate work, or a total score of 1000 on the Graduate Record Examination are eligible for unconditional admission to the program. Provisions can be made for admittance as Special Students until admissions criteria have been satisfied. Under certain circumstances, exceptions to these standards can be made.
Campus Location: Tamiami Campus only.

## Degree: Master of Science in Criminal Justice

A. Degree Credit Requirements

The master's degree in criminal justice requires sixty (60) quarter hours of credit. A maximum of ten (10) quarter hours may be transferred into the program from other accredited institutions, subject to the approval of the Graduate Admissions Committee. Candidates have the option of two programs of study; i.e., the thesis and non-thesis options. Those selecting the thesis option are required to complete 50 quarter hours of course work and 10 quarter hours of thesis. The non-thesis option consists of 60 quarter hours of course work and comprehensive written and oral examinations. All candidates must take five core seminars.
B. Specific Program Requirements Are:

Quarter Hours
Core Courses:
CCJ 6055
Seminar in Criminal Justice
5
CCJ 6476
Criminal Justice Planning
5
CCJ 6477
Information Systems for Criminal Justice
5

CCJ 6709

Advanced Research Methods
5

$$
\text { CCJ } 6971 \text { Thesis (for students in thesis track) } 10
$$

Administrative Concentration:
Administration and Management of Criminal Justice Agencies
CCJ 6457 Organizational Development in Criminal Justice Agencies
CCJ 6467 Human Resources Management in Criminal Justice
CCJ 6485 Politics and Criminal Justice
CCJ 6486 Labor Relations in the Criminal Justice Sector
CCJ 6716
Productivity and Program Evaluation
General Electives:
10 or 20
CCJ 6050
Seminar in Criminology
CCJ 6105 Seminar in Law Enforcement
CCJ 6285 Seminar in the Concept of Justice
CCJ 6365 Seminar in Corrections
CCJ 6468 Intergroup Relations in Criminal Justice
CCJ 6495 Seminar in Court Administration
CCJ 6525 Seminar in Juvenile Justice
CCJ 6635 Seminar in Comparative Criminal Justice
CCJ 6665 Seminar in Victimology
CCJ 6945 Field Experience in Criminal Justice
Additional Procedures:
All students will select a committee of three graduate faculty members, the student's major faculty advisor being a member and Chairperson of this committee. The major advisor and committee will be responsible for overseeing the student's work while in the master's program. Admission to the program should not be construed as admission to candidacy for a degree. Students may apply for candidacy upon completion of 25 quarter hours (including 2 of the 5 core courses). Admission to candidacy should be completed before the student enrolls for the last 20 hours.
C. Graduation Requirements

To receive the master's degree in Criminal Justice, a student must: satisfy all University regulations governing graduate study. Students in the thesis track must be admitted to candidacy and complete the 5 core courses, 3 administrative electives, 2 general electives, and the thesis. The student may be required to undergo an oral discussion of the thesis. Students in the non-thesis track must be admitted to candidacy and complete the 5 core courses, 4 administrative electives, 3 general electives, and a written and oral comprehensive examination.

## MASTER OF SCIENCE IN CRIMINAL JUSTICE

## DEFINITION OF PREFIX

CCJ-Criminology and Criminal Justice.

## CORE COURSES

derstanding of the various techniques and their applications. The use of computerized statistical packages will be presented Prerequisites STA 3122 and STA 3123 or permission ol instructor.
CCJ 6709 ADVANCED RESEARCH METHODS
The focus of this course is on the presentation and discussion of research methodology of primary interest 10 criminal justice students Emphasis is placed on preparation for thesis research, the requirements lor proposal preparation and linal thesis report.

## CCJ 6971 THESIS

The complelion and defense of the thesis.

## ELECTIVES

CCJ 6050 SEMINAR IN CRIMINOLOGY
A critical study of selected theoretical and research issues related to the nature and causes of crime. Special topics are announced at the beginning of each quarter. May be repeated.
CCJ 6105 SEMINAR IN LAW ENFORCEMENT
An analysis of current major hypotheses and problems in law enforcement. Special topics announced at the beginning of each quarter. May be repeated

## CCJ 6285 THE CONCEPT OF JUSTICE

A study of philosophical and utilitarian approaches to the definition of justice, and the varıed translations of the concepts of justice into concrete action.
CCJ 6365 SEMINAR IN CORRECTIONS
An analysis of current major hypothesis and problems in corrections. Special topics announced at the beginning of each quarter. May be repeated.
CCJ 6456 ADMINISTRATION \& MANAGEMENT OF CRIMINAL JUSTICE AGENCIES
An examination of the criminal justice system from the perspective of administrative and management problems. Emphasis is on the identification of solution alternatives for those problems having the most significant impact on the components of the criminal juslice system.
CCJ 6457 ORGANIZATIONAL DEVELOPMENT IN CRIMINAL JUSTICE AGENCIES
A course designed to familiarize students with the orgainzational development methodologies that have relevance to the management of change within criminal justice agencies. Special attention will be given to case studies of the various methodologies utilized by criminal justice agencies.
CCJ 6467 HUMAN RESOURCES MANAGEMENT IN CRIMINAL JUSTICE
A sludy of the various employment practices within criminal justice agencies and the impact of these praclices on the development of the criminal justice system.
CCJ 6468 INTERGROUP RELATIONS IN CRIMINAL JUSTICE
A study of theories, strategies and tactics employed in intergroup relations in criminal justice. Attention is given to increasing the student's awareness and sensitivity to the dynamic forces within intergroup relations, as a means of increasing his or her productivity as a criminal justice practitioner.
CCJ 6485 POLITICS AND CRIMINAL JUSTICE
An analysis of the various criminal justice subsystems as they interrelate with the political system, political feasibility, community control, and social and economic policy.

## CCJ 6486 LABOR RELATIONS IN THE CRIMINAL JUSTICE SECTOR

An examination of the area of collective bargaining for public employees. Special emphasis is placed on the current status of labor relations law and its impact on the criminal justice system.
CCJ 6495 SEMINAR IN JUDICIAL ADMINISTRATION
An analysis of current major hypotheses and problems in judicial administration. Special topics announced at the beginning of each quarter. May be repeated.
CCJ 6525 SEMINAR IN JUVENILE JUSTICE
Philosophy and procedures of the juvenile courts. Discussion of dependency, delinquency, and family law. Evaluation of juvenile court practices.
CCJ 6635 SEMINAR IN COMPARATIVE CRIMINAL JUSTICE SYSTEMS
A comparative study of the various criminal justice systems in the United States with similar governmental and social systems in other countries
CCJ 6665 SEMINAR IN VICTIMOLOGY
An in-depth study of the criminal-victim relationship.
CCJ 6716 PRODUCTIVITY AND PROGRAM EVALUATION
A systematic review of the problems involved in productivity, improvement in criminal justice agencies, and program evaluation.
CCJ 6945 FIELD EXPERIENCE IN CRIMINAL JUSTICE
A course designed to provide selected students an opportunity to engage in action-oriented research within a criminal justice agency on a designated research project.

## DIETETICS AND NUTRITION

Penelope Easton, Professor and Chairman<br>Katharine Curry, Associate Professor and Director, CUPID<br>Michele Keane, Assistant Professor<br>Rasheed Khan, Assistant Protessor

Susan Myers, Assistant Professor<br>Susan Himburg, Assistant Professor and System Leader, CDES<br>Ann Welch, Assistant Professor and Clinical Coordinator, CDES

The Department offers a major leading to a baccalaureate degree with a concentration in general dietetics, and courses in nutrition for allied disciplines or for the student who desires a working knowledge of nutrition. The Department also offers a Master of Science degree program in dietetics with areas of concentration in therapeutic and community dietetics or dietetic management. The undergraduate programs are designed to assist the student gain basic practitioner understanding and skills, and to achieve his or her career objectives. The graduate program prepares the student to assume leadership responsibilities in health care institutions, community health agencies, or private practice. The graduate program allows for concentration in research or field application.

## UNDERGRADUATE PROGRAMS

The coordinated undergraduate program meets the requirements of the American Dietetic Association, both for academic preparation for membership and for clinical experience.

The Florida International student must make formal application to the Department for the clinical portion of the program by April 15 of the spring quarter before fall admissions. Clinical courses are sequential and require two years to complete. Clinical experiences are available in several hospitals and other health agencies. A graduate of the clinical portion of the program is eligible to take the examination to become a registered dietitian.

A graduate of the above program is awarded a Bachelor of Science degree. With special planning and advisement, a program of study leading to the Bachelor of Science degree in dietetics and nutrition without clinical experience may be arranged.

## GENERAL DIETETICS

Campus Location: Tamiami Campus only.
DEGREE: Bachelor of Science in Dietetics and Nutrition
LOWER DIVISION PREPARATION:
The student desiring to major in general dietetics should have completed the following: (1) general education requirements (if not included in the lower division general education coursework, at least one course each in psychology, sociology, economics, two courses in English composition or technical writing); (2) two courses in inorganic chemistry; (3) one course in organic chemistry;* (4) one course in business management; (5) one course in basic foods; (6) one course in basic nutrition; (7) Microbiology; and (8) one course in quantity food preparation.
UPPER DIVISION PROGRAM:

| Required Courses: |  | Quarter Hours |
| :---: | :---: | :---: |
|  |  | 81-83 |
| NOTE: Courses designated below with an asterisk (*) |  |  |
| comprise the clinical component, and must be taken in the |  |  |
| order listed. Clinical experiences are supervised by the |  |  |
| course instructors. Clinical stations are located in |  |  |
| appropriate hospitals, health agencies and school food |  |  |
| service programs. Courses marked with an asterisk (*) are |  |  |
| open only to students in the coordinated clinical program. |  |  |
| Applied courses and practicum must be taken |  |  |
| concurrently with the related didactic courses. |  |  |
| DIE 3005 | Orientation to Dietetics* - | 3 |
|  | - (Organic Chemistry must be completed before DIE 3005 is taken) |  |
| HUN 4410 | Nutrition: Infancy Through Adolescence | 4 |
| FSS 3215 | Meal Management (or equivalent |  |
|  | course in institutional management) | 4 |
| DIE 4317 | Dietetics in Community Health* | 7 |
| DIE 3245 | Diet Therapy | 3 |
| DIE 3275 | Applied Diet Therapy* | 6 |
| DIE 3125 | Management of Dietary Systems | 3 |
| DIE 3175 | Management of Dietary Systems Practicum* | 6 |

DIE 4296 Special Problems in General Dietetics* 1-3
DIE 4435 Dietetıc Instruction and Counseling 4
DIE 4436 Dietetic Instruction and Counseling Lab 1
DIE 4365 Dietetic Management of Nutrition Programs (Advanced) 2
DIE 4377 (Applied) Dietetıc Management of Nutrition Programs (Practicum)* 6
HUN 4241 Nutrition II 4
FOS 4041 Food Science 4
DIE 4536 Advanced Clinical Practicum in Dietetics* 9
DIE 4506 Seminar in Dietetics and Nutrition* 6
Other Requirements: One course in biochemistry;
one course in human physiology: plus any
lower division requirements not completed.
Recommended Electives: Selected courses in the following areas: education, statistics, social work, health science, adult education, business, anthropology, sociology.

Campus Location: Tamiami and North Miami Campuses.
DEGREE: Master of Science in Dietetics
A candidate for the master's degree in Therapeutic and Community Dietetics must complete the following courses:

## DIETETICS

A candidate for the Master of Science degree in Dietetics must complete a minimum of 45 quarter hours of graduate study. Thirty-three of the 45 quarter hours must be taken at Florida International. All graduate coursework must be recent enough to be relevant to the current field of dietetics.

The student's program of study, consistent with his or her career goals, should be planned in consultation with the assigned faculty advisor. The proposed program of study must be filed in the office of the Chairperson of the Department by the end of the student's first academic quarter of fulltime graduate study.

## THERAPEUTIC AND COMMUNITY DIETETICS

 Admission to the master's program is determined by an evaluation of the applicant'sbachelor's program. An adequate undergraduate preparation usually includes completion of the minimum requirements for membership in The American Dietetic Association, or an undergraduate major in a closely allied discipline. The graduate admission requirements of the Board of Regents must be met and are as follows: A combined score of 1000 on the Graduate Record Examination (Verbal and Quantitative Aptitude Tests), or at least a "B" average in all upper division coursework.

## GRADUATE PROGRAM

 *all chemistries must have laboratories.
## Quarter Hours

DIE 5247 Diet in Disease Prevention and Treatment
4
DIE 6937 Graduate Seminar in Dietetics 1
DIE 6568 Research Methods in Dietetics 3
HUN 6811 Laboratory Research Methods in Dietetics or
DIE 6578 or
DIE 6971
HUN 5245 or

Field Research Methods in Dietetics 3 Supervised Field Study in Dietetics

Thesis in Dietetics
5 Nutrition and Biochemistry

FOS 6044 or

Other DIN Program Courses 8-10
Courses outside the DIN Program $\quad 12-14$

## DIETETIC MANAGEMENT

Campus Location: Tamiami and North Miami Campuses.
DEGREE: Master of Science in Dietetics

> DIE 6937
> DIE 6568
> HUN 6811 or

DIE $6578 \quad$ Field Research Methods in Dietetics
DIE 6908 Supervised Field Study in Dietetics or
DIE 6971
Thesis in Dietetics 5

FOS 6044 Advanced Food Science 4
DIE 6128 Advanced Management of Dietary Systems 4
Other DIN Courses
12-14
Courses outside the DIN Program

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

DIE-Dietetics: FOS-Food Science; FSS-Food Service Systems; HUN-Human Nutrition.

## DIE 3005 ORIENTATION TO CLINICAL DIETETICS

Survey of the role and responsibilities of the dietitian. Legal and ethical considerations necessary for the sludent dietilian in clinical experiences. Educational and personal qualifications for specialization in dietetics. Prerequisite: Organic chemistry or permission of Chairperson. Clinical component: open only to students in the coordinated clinical program.

## DIE 3125 MANAGEMENT OF DIETARY SYSTEMS

Survey of various types of institutional food service systems. Covers management concepts involved in planning. implementing, and evaluating tood service systems. Prerequisite: DIE 3005, or permission of instructor.

## DIE 3175 MANAGEMENT OF DIETARY SYSTEMS PRACTICUM

Provides for developing the skills listed for DIE 3125. Clinical assignements will be made in several food service institulions in this area. Corequisite: DIE 3125. Clinical component: open only to students in the coordinated clinical program.

## DIE 3245 DIET THERAPY

Techniques of adjustıng nutrients and food intake to accommmodate medical treatments and previous nutriture Menu writing and analysis, translation of dietary prescriptions, lechniques of dietary instruction, dietary histories. Prerequisites: HUN 3122 or equivalent, physiology and biochemistry.

## DIE 3275 APPLIED DIET THERAPY

Observation and particıpation in dietary treatment activities. In clinical institutions, application of menu writing, translation of dietary prescriplions, techniques of dietary instruction and dietary history. Clinical component open only to students in the coordinated clinical program.
DIE 4195 SPECIAL PROBLEMS IN DIETETIC ADMINISTRATION
(1-3)
In-depth study ol a problem in dietetic administration, chosen to coincide with the student's interests and career goals. The student develops objectives stated in behavioral lerms; and demonstrates skills in information gathering, analysis and tecnhical writing. Clinical component: open only to students in the coordinated clinical program

In-depth study of a problem in general dietetics, chosen to coincide with student's interests and career goals. The student develops objectives stated in behavioral terms; and demonstrales skills in information
gathering, analysis and technical writing. Clinical component: open only to students in the coordinated clinical program
DIE 4317 DIETETICS IN COMMUNITY HEALTH
Study of community agencies avallable for nutrition guidance lor dillering age groups. Observation and participation in activities of community agencies Prerequisites. physiology, HUN 3122. Clinical component: open only to sludents in the coordinated clinical program.
DIE 4365 DIETETIC MANAGEMENT OF NUTRITION PROGRAMS
Advanced concepts of the managerial functions of a dietitian working as an institutional consultant, a member of a community nutrition program, a private therapuetic consultant and/or full lime inslitutional lood service administrator will be covered. A part of the clinical sequence. Advanced standing required. Six hours practicum will be taken concomittantly. Clinical component: open only to sludents in the coordinated clinical program
DIE 4377 DIETETIC MANAGEMENT OF NUTRITION PROGRAMS PRACTICUM
Assignments are made in various community agencies and institutions lor development of beginning prolessional level competencies in management of nutrition and food service programs. Clinical component: open only to students in the coordinated clinical program.
DIE 4435 DIETETIC INSTRUCTION AND COUNSELING
Motivational methods and instructional techniques will be practiced, in simulation activities, for the development of entry level competencies. Recorders and VTRs will be used for feedback and evaluation. Advanced standing in dietetics required.
DIE 4436 DIETETIC INSTRUCTION AND COUNSELING LAB
Provides small group video tape recording practıce in dietetic instruction and counseling. Prerequisite: Advanced standing in dietetics. Corequisite: DIE 4435.
DIE 4506 SEMINAR IN DIETETICS AND NUTRITION
Siudy of current dietetic and nutrition problems and research findings. Prerequisite: DIE 4317 or permission of instructor. Clinical component: open only to students in the coordinated clinical program.
DIE 4536 ADVANCED CLINICAL PRACTICUM IN DIETETICS
(3-9)
In-depth study combining theoretical concepts and clinical experience. Learning experience is planned cooperatively by the student, campus instructor, and clinical instructor to meel the individual needs and goals of the student. Prerequisite: DIE 4365. Clinical component: open only to students in the coordinated clinical program.
DIE 5247 DIET IN DISEASE PREVENTION AND TREATMENT
Crilical study - historical, current, and experimental. Prerequisite: DIE 3245, or equivalent.
DIE 5926 WORKSHOP IN DIETETICS AND NUTRITION
Short term intensive development at the graduate level of selected subject matter in dietetics, nutrition or nutrition education. Techniques and methods suitable for nutritionists, home economists.
DIE 6128 ADVANCED MANAGEMENT OF DIETARY SYSTEMS
Emphasis on management and organizational theory. Innovative projects for the development of management compelencies are developed to meet needs of individual students. Prerequisite: Permission of instructor.
DIE 6568 RESEARCH METHODS IN DIETETICS
Consideration of scientific method and theoretical orientation as applied to research in dietetics. Special consideration given to various techniques ol investigation, data collection, data organization, and interpretation. Prerequisite: Permission of instructor
DIE 6578 FIELD RESEARCH METHODS IN DIETETICS
Application of field research methods in designing and interpreting research studies. Introduction to interdisciplinary research approaches. Prerequisites: HUN 6247 and consent of Department Chairperson.

## DIE 6907 INDIVIDUAL STUDY IN DIETETICS

Intensive individual investigation of a phase of dietetics. Emphasis on recent findings in dietetics and allied disciplines. Prerequisite: Consent of the Chairperson of the Department.
DIE 6908 SUPERVISED FIELD STUDY IN DIETETICS
Pre-planned practical experience al the prolessional level in an area of dietetics. Critical written evaluation by the student, developed with frequent consultation and supervision of instructor. Prerequisites: Prolessional competency in dietetics and permission of the Chairperson of the Department.

DIE 6937 GRADUATE SEMINAR IN DIETETICS
An exploration of current issues in the field of dietetics and nutrition. Topics are chosen by the class and instructor(s). Each student has an opportunity to lead the discussion. One hour required of all graduate students. Student may repeat up to 3 hours.
DIE 6971 THESIS IN DIETETICS
By arrangement with student's thesis committee.
FOS 3004 FOOD AND THE CONSUMER
Sfudy of purchasing. storage and preparation of lood. Consideration of current life style which influences lood choices. Designed to develop the student's skills in purchasing and preparing foods, to meel personal, social. and physical needs. Demonstration laboratory included. Recommended for non-majors.
FOS 3021 FOOD AND NUTRITION SCIENCE
An overview of the effects of storage, processing and preparation techniques on food and its ingestion by humans. Laboratory included. Prerequisite: Background competency in food and nutrition. Recommended lor non-majors.
fion, and storage. Legal control, economic considerations, nutrient contributions of mass-produced loods, compared with foods prepared on-site. Prerequisites: organic chemistry, HUN 3122, FSS 3215, or equivalents.
FOS 6044 ADVANCED FOOD SCIENCE
In-depth study of chemical and physical properties of interactive components of selected foods. Emphasis on effects of additives and methods of preparation and preservation. Prerequisite: FOS 4041 or equivalent.
FSS 3215 MEAL MANAGEMENT AND SERVICE
Development ol skills in basic techniques of purchasing, preparation and service of food for individuals and small groups. Includes laboratory and experiences in demonstration techniques. Prerequisite or corequisite: HUN 3122 (or permission of instructor).

## FSS 3316 FOOD SCIENCE FOR INSTITUTIONS

Course will emphasize proper food handling in institutional settings, with use of sound management principles closely coordinated with food science advances and government regulations. Laboratory and field trips will be used to strengthen theoretical concepts. No prerequisites.
HUN 3122 NUTRITION AND CULTURE
Nuirients and their interrelationships, with reference to food habits and needs of various population groups. Introduction to the impact of culture on nutriture, and study of personal food pattern development. Recommended for non-majors
HUN 3240 METABOLIC ASPECTS OF NUTRITIONAL STATUS
Course emphasizes the nutritional components of food, and metabolic aspects of nutrients. Includes the interaction of nutrients and their complete degradation and utilization to meet the metabolic demands of the body. Prerequisites: 12 quarter hours chemistry and HUN 3122, or equivalent
HUN 4241 NUTRITION II
Roles of nutrients in metabolic processes. Effects of excesses and deficiencies. Prerequisites: Organic chemistry, physiology, and HUN 3122 or equivalent.
HUN 4410 NUTRITION: INFANCY THROUGH ADOLESCENCE
Nutrient intakes recommended for children in different age groups, in respect to social, economic and physical environments. Designed to equip students with limited nutrition intormation, and develop skill in incorporating nutrition information in formal and informal learning situations. Recommended for nonmajors.
HUN 5123 ETHNIC INFLUENCES OF NUTRITURE ANDFOOD HABITS
Systematic study of the food habits of various cultural groups. Emphasis is on methodology, analysis of data. relationship of food habits to nutritional standards and corrective measures. Prerequisite: Competency in lood preparation and nutrition. Recommended for non-majors.
HUN 5245 NUTRITION AND BIOCHEMISTRY
Advanced study of the relationship of nutrition and biochemistry, with emphasis on digestion, absorption and metabolism of carbohydrates, lipids and proteins. Prerequisites: physiology, biochemistry and HUN 4241 (Nutrition il).
HUN 5611 NUTRITION EDUCATION IN THE COMMUNITY
In-depth study of nutrition education information and methods in the community, including the nutrition education component of school food service and other congregate meal programs. Prerequisites: Recent courses in nutrition education or permission of instructor. Taught in fall term alternately with HUN 5621. Recommended for non-majors.
HUN 5621 FOOD, NUTRITION AND COMMUNICATION
Covers concepts and techniques for effective professional communication with individuals, groups, and other professionals. Emphasis is on differences in approach to communication in small groups vs. mass media Prerequisites: Advanced slanding, competency in food and nutrition knowledge. Taught in fall quarter alternately with HUN 5611. Recommended for non-majors.

## HUN 5890 RECENT RESEARCH IN NUTRITION

Updating of nutrition information. Study of current nutrition research. Prerequisite: One recent course in nutrition. Taught alternate springs. Recommended for non-majors.
HUN 6247 NUTRITIONAL PATHOPHYSIOLOGY
Systems of the body in relation to the pathological conditions allied to disgestion, absorption, metabolism, and other states in which nutrition plays a part in etiology or treatment. Prerequisites: physiology, DIE 3245, and HUN 4241.
HUN 6408 NUTRITION DURING THE LIFE CYCLE
In-depth study of nutrient needs of individuals and groups at different stages of life. Emphasis on nutrient inter-relationships, and effects of deficiencies and excesses on metabolism. Prerequisite: HUN 4241 or equivalent
HUN 6521 ADVANCED COMMUNITY NUTRITION
In-depth study of assessment of nutriture in population groups, and public need for nutrition information. Emphasis on nutrition consultation for health prolessionals, and methods of delivery of dietary care. Prerequisite DIE 4365 or equivalent. Taught spring terms alternately with HUN 5245.

## HUN 6811 LABORATORY RESEARCH METHODS IN DIETETICS

Laboratory application of research methods in dietetics. Prerequisites: DIE 6568 and consent of Department Chairperson

# HEALTH SCIENCE 

Glenda L. Benedict, Associate Professor and Chairperson
Vandon E. White, Professor
Florence C. Amato, Associate Professor

Maria B. Ortiz-Morales, Associate Professor
Martha A. Cochran, Assistant Professor
David B. Liebman, Assistant Professor

The Department offers four areas of concentration (tracks) leading to the bachelor's degree in health science: health science management: health science education; health science general studies: health science - medical records administration. Curriculum in all tracks is subject to change.
Campus Location: Tamiami and North Miami Campuses.
DEGREE: Bachelor of Science in Health Science
LOWER DIVISION PREPARATION:
Required: an Associate of Science degree in the allied health field, or an Associate of Arts degree (upon approval of the Department), or the equivalent.
Recommended: an applicant should have academic preparation in the following fields: economics, college algebra, accounting, social sciences, introduction to statistics.
UPPER DIVISION PROGRAM:
Quarter Hours
Core Courses: required of every health science major regardless of track.
HSC 3300 Health and Social Service Delivery Systems
HSC 4101 Management for the Health Professions
HSC 4201 Information Systems 5

HSC 4301 The Team Approach to Service Delivery 3
HSC 4572 Principles of Epidemiology 5
Electives: In addition to the required courses for all health science majors and the required core courses in the student's area of concentration (track), electives may be selected from any department within the University. One half of the electives should be in health sciences. Internship experiences are also made available to students.

## HEALTH SCIENCE MANAGEMENT TRACK

This program provides in-depth training in health services and health care administration, including supportive courses in the liberal arts and sciences, and leads to a Bachelor of Science degree. The program is designed to prepare the student to begin a career in health administration at the middle-management level in community hospitals, university medical centers, state and federal health agencies, nursing homes, and voluntary health agencies. The student desiring to proceed directly into graduate study can seek admission into the health management program leading to a Master of Science in management-health care offered by the School of Business and Organizational Sciences at Florida International. Refer to the appropriate section of this catalog.

HSC 3300 Health and Social Service Delivery Systems
5
HSC 4572 Principles of Epidemiology 5
HSC 4401 Principles and Programs in Public Health 5
HSC 4101 Management for the Health Professions 5
HSC 4201 Information Systems 5
HSC 4301 The Team Approach to Service Delivery 3
HSC $4390 \quad$ Issues and Trends in Health Care Delivery 5
HSC 4151 Legal Aspects and Legislation in Health Care 5
HSC 4111 Health Management Engineering 5
HSC 4321 Health Care Systems 5

| HSC 5120 | Human Resource Management in the Health |  |
| :--- | :--- | :--- |
| Care Field | 5 |  |
| HSC 4131 | Health Care Financial and Accounting Management | 5 |

## HEALTH SCIENCE EDUCATION TRACK

This program is designed to prepare students to work in settings requiring educational skills in health care settings and community colleges. Additional clinical courses are not required. This track does not prepare students for certification as teachers in public school grades K-12.

Electives in health science, psychology and education are recommended.

HSC 3300 Health and Social Service Delivery Systems 5
HSC 4572 Principles of Epidemiology 5
HSC 4401 Principles and Programs in Public Health 5
HSC 4101 Management for the Health Professions 5
HSC 4201 Information Systems 5
HSC 4301 The Team Approach to Service Delivery 3
HSC 4151 Legal Aspects and Legislation in Health Care 5
EVT 3065 Foundations of Vocational Education 5
EVT 3165 Course Planning in Vocational Education 5
EVT 4365 Instructional Strategies and Evaluation in
Vocational and Technical Education 5
EVT 5460 Educational Media 5
Electives

## HEALTH SCIENCE GENERAL STUDIES TRACK

This program is provided for the student who has completed a two-year professional program, and who desires little or no additional clinical training. The student may largely design his or her own program of study to meet particular career needs, in consultation with a faculty advisor.

|  |  | Quarter Hours |  |
| :--- | :--- | ---: | :--- |
| Required Track | Courses: | 5 | 48 |
| HSC 3300 | Health and Social Service Delivery Systems | 10 |  |
| HSC 3905 | Individual Study | 5 |  |
| HSC 4101 | Management for the Health Professions | 5 |  |
| HSC 4201 | Information Systems | 5 |  |
| HSC 4301 | The Team Approach to Service Delivery | 3 |  |
| HSC 4390 | Issues and Trends in Health Care Delivery | 5 |  |
| HSC 4151 | Legal Aspects and Legislation in Health Care | 5 |  |
| HSC 4572 | Principles of Epidemiology | 5 |  |
| HSC 4401 | Principles and Programs in Public Health | 5 | 42 |
| Electives: |  |  |  |

## HEALTH SCIENCE MEDICAL RECORDS ADMINISTRATION TRACK

The curriculum listed below is tentative and should not be interpreted as the final program of siudies. After AMRA-AMA accreditation of the program, upon completion of this track the student will become eligible to take the registration examination to become a Registered Record Administrator.

## MEDICAL RECORDS ADMINISTRATION PROGRAM

HSC 3531
HSC 3531L
MRE 3110
MRE 3110L
HSC 3300
HSC 3510
MRE 3800
HSC 4151
ECO

MRE 3205
MRE 3205L
HSC 3511
COC 3300
HSC 3512
MRE 3810
HSC 4572
HSC 4201
MRE 4110
MRE 4110 L
MRE 4831
HSC 4101
HSC 4131
MRE 4312
MRE 4312L
MRE 4830
HSC 4111
HSC 5120
MRE 4304
MRE 4835
HSC 4301
HSC 4390
Medical Terminology
Medical Terminology, Laboratory ..... 2 Quarter Hours
Medical Records Administration I ..... 3
Medical Records Administration I, Laboratory ..... 2
Health and Social Service Delivery Systems ..... 5
Fundamentals of Medical Science I ..... 4
Directed Practice 1 ..... 2
Legal Aspects and Legislation in Health Care ..... 5
(or other elective with permission of Program Director) ..... 5
Medical Records Administration II ..... 3
Medical Records Administration II, Laboratory ..... 2
Fundamentals of Medical Science II ..... 4
Introduction to Computers and Computers Applications ..... 5
Fundamentals of Medical Science III ..... 4
Directed Practice II ..... 2
Principles of Epidemiology ..... 5
Information Systems ..... 5
Medical Records Administration III ..... 3
Medical Records Administration III, Laboratory ..... 2
Directed Practice III ..... 1
Management for the Health Professions ..... 5
Health Care Financial and
Accounting Management ..... 5
Medical Records Administration IV ..... 3
Medical Records Administration IV, Laboratory ..... 2
Directed Practice IV ..... 1
Health Management Engineering ..... 5
Human Resources Management in Health Facilities ..... 5
Problems in Medical Records Administration ..... 2
Internship in Medical Records Management ..... 5
The Team Approach to Service Delivery ..... 3
Issues and Trends in Health Care Delivery ..... 5
Total ..... 106

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

ENC-English Composition: HCA-Health Care Administration; HSC-Health Science; MRE-Medical Records.
ENC 3397 TOPICAL INVESTIGATION AND REPORTING IN THE HEALTH SCIENCES
This course is designed to aid the student in the development of written communication and investigation
skills in the health sciences.

HCA 5611 HEALTH PLANNING TECHNIQUES
Basic health planning methods and procedures. Functions and special support techniques of hospitals, medical public health institutions, nursing homes, educational and similar organizations. Prerequisite: one semester of basic statistics.
HSC 3051 THE SYSTEMS' RESPONSE TO SPECIAL POPULATION GROUPS: MENTAL RETARDATION
An examination of changing concepts, trends, research, and community responsibilities in the delivery of health and social services to the mentally retarded person.

Includes a review of international health care systems, relevant legislation, and federal, state, and local health and social service programs
HSC 3511 FUNDAMENTALS OF MEDICAL SCIENCEI
A systematic review of organ systems, arranged by medical specialties. Typical chart data will be included. with representative information characteristic of history and physical examination, laboratory, $x$-ray data, and nursing notes Specialties covered are internal medicine, pediatrics. obstetrics and gynecology.
HSC 3512 FUNDAMENTALS OF MEDICAL SCIENCE II
A systematic review of organ systems, arranged by medical specialties. Typical chart data will be included. with representative information characteristic of history and physical examination, laboratory, x-ray data, and nursing notes. Specialties covered are general surgery, neurosurgery, neurology, and orthopedics
HSC 3513 FUNDAMENTALS OF MEDICAL SCIENCE III
A systematic review of organ systems, arranged by medical specialties. Typical chart data will be included. with representative information characteristic of history and physical examination, laboratory, $x$-ray data. and nursing notes. Specialties covered are endocrinology, otorhinolaryngology, opthalmology, oncology, genetics and anesthesiology.

## HSC 3531 MEDICAL TERMINOLOGY

Provides the student with basic medical language skills, including pronunciation, spelling, and definitions necessary for communication in the medical world
HSC 3531L MEDICAL TERMINOLOGY LABORATORY
Laboratory to accompany HSC 3531. Comprehension in transcription of medical records, including history and physical reports, x-ray, operative, and pathology reports
HSC 3905 INDIVIDUAL STUDY
This course is designed to allow students an opportunity to do an in-depth research or action-oriented project under faculty supervision.
HSC 4021 CONSUMER HEALTH AND SAFETY EDUCATION
Includes survey of the problems and products influencing the consumer of health services; and study of solutions to prevent and correct fraud
HSC 4023 PEOPLE, POWER AND HEALTH
The historical, psychological, and philosophical rationale for consumer participation in health settings is explored. Appropriate roles for consumers in the decision-making process are developed
HSC 4061 FAMILY HEALTH CENTERS: AN OVERVIEW
Historical review of lamily health centers. Considers these centers as an alternative in the delivery of health care. Uillizes lectures and field trips.
HSC 4101 MANAGEMENT FOR THE HEALTH PROFESSIONS
Fundamentals of management for the solution of problems in the organization and operation of health programs.
HSC 4111 HEALTH MANAGEMENT ENGINEERING
Basic theory of health systems analysis including information systems development and use of various industrial engineering and operations research tools and techniques. Prerequisite: HSC 4201
HSC 4131 HEALTH CARE FINANCIAL AND ACCOUNTING MANAGEMENT
The financial Iramework within which health care organizations and facilities operate. The course covers the principles of working capital management, capital budgeting, and the capitalization process in the health care environment. Topics emphasized include: inventory management, accounts receivable management, sources ol operating revenue, third party payers, budgeting for operating costs, long-term investment, and long-term tinancing. The student is expected to understand and be able to participate in the financial decison-making processes of health care organizations.

## HSC 4151 LEGAL ASPECTS AND LEGISLATION IN HEALTH CARE

A study of the ways in which the law allects health care in the public and private sectors. The course is designed to aid professional and allied health personnel to identify legal issues and utilize preventive measures to avoid legal entanglements. Formal lectures and seminar participation will be utilized.
HSC 4201 INFORMATION SYSTEMS
Fundamental concepts of statistics. research design, and data processing as they relate to health programs.
HSC 4301 THE TEAM APPROACH TO SERVICE DELIVERY
Various models for the team delivery of health and social services will be described and analyzed. The roles and functions of related service professionals will be identified. CR/NC grading.

## HSC 4321 HEALTH CARE SYSTEMS

Description of various health care administrative systems; discussion of various health care problems and programs Political aspects. lobbying. program evaluation and grantsmanship included.

## HSC 4390 ISSUES AND TRENDS IN HEALTH CARE DELIVERY <br> Analysis of important issues, trends, and problems allecting health care delivery in the U.S. Prerequisite: HSC 3300 or permission of instructor

HSC 4401 PRINCIPLES AND PROGRAMS IN PUBLIC HEALTH
An analysis of public health programs and planning An overview of the organization of public health systems at various levels public health history and philosophy: major public health issues; and the broader societal environment of public health concerns.
HSC 4572 PRINCIPLES OF EPIDEMIOLOGY
An in-depth sludy of the field ol epidemiology its ethical aspects, local, national and international components considered Some clinical exposure

An in-depth study of the phenomenon of aging, societal attitudes toward the elderly, and steps taken by governmental agencies to deal with the problems of the aged

## HSC 4930 SPECIAL TOPICS IN HEALTH SCIENCE

This course is designed to allow the student to investigate special topics of explosive interest in health care, and will be taught by prolessors outstanding in the topic field covered
HSC 4940 CLINICAL INTERNSHIP
Course provides an opportunity lor the student 10 practice in the clinical setting, the techniques and skill acquired in the classroom. Students must have completed the major track and have received no grade lower than C in all major coursework in order to be eligible for this course
HSC 5120 HUMAN RESOURCE MANAGEMENT IN HEALTH CARE ORGANIZATIONS
The personnel administration function in health facilities. Includes study of personnel policies and procedures: recruitment, training and retention of employees, personnel relations and benefils programs. includes study of motivation in human productiveness, group costs, and retention of employees, labor relations in the health lield
MRE 3110 MEDICAL RECORDS ADMINISTRATION I
Introduces the student to the historical development of medical record science. Role and function of the medical records administrator. Professional ethics. Flow of the medical record from patient admission to completion of the record atter discharge. Numbering and filing systems. The medical record: content and format, value and standards for health care facilities
MRE 3110 L MEDICAL RECORDS ADMINISTRATION I, LABORATORY
Laboratory to accompany MRE 3110. Competency: Setting up filing systems in health care facilities.
Organization and analysis of traditional and problem-oriented medical records to meet standards of JCAH, AOA. Medicare and Medicaid.
MRE 3205 MEDICAL RECORDS ADMINISTRATION II
Introduces the student to the purposes of classifying diseases and operations. Differentiates between nomenclatures and classification systems, including SNDO, TCDA-8, and others. Presents an in-depth study of hospital statistics. Covers sources, definitions, collection, and reporting of data in the medical records department of health care tacilities.
MRE 3205L MEDICAL RECORDS ADMINISTRATION II, LABORATORY
Laboratory to accompany MRE 3205. Competency: Coding and indexing of diseases and operations. Setting up indexing systems. Retrieval of medical data. Developing data collection systems. Completing reports and analyzing data for administrative uses.
MRE 3800 DIRECTED PRACTICE I
Orientation of the student to the hospital medical records department and adjunct diagnostic or therapeutic units, including the outpatient department, emergency room, admitting office, $x$-ray, pharmacy. physical therapy, laboratory, and pathology department.
MRE 3810 DIRECTED PRACTICE II
Orientation of the student to medical records department functions. Rotation of the student through technical functions of the department, following the flow of the patient's record after discharge. Includes the discharge procedure; analysis, coding and indexing systems; statistical reporting; correspondence; control of the incomplete medical record; and processing of the completed record.
MRE 4110 MEDICAL RECORDS ADMINISTRATION III
Medical care evaluation, including organizational structures, methods and procedures in compliance with the Joint Commission on Accreditation of Hospitals, AOA, Medicare and PSRO.
MRE 4110L MEDICAL RECORDS ADMINISTRATION III, LABORATORY
Competency: Abstracting of medical data to meet criteria. Analyzing criteria. Setting up utilization plans and procedures. Medical research design.
MRE 4304 PROBLEMS IN MEDICAL RECORDS ADMINISTRATION
Through illustrative case reports, group discussions, role playing, oral reports, lectures, buzz sessions, and review of the literature, students explore effective methods for identifying and arriving at satisfactory solutions to specific types of problems they may expect to encounter in the administration of medical record services.

## MRE 4312 MEDICAL RECORDS ADMINISTRATION IV

Management of a medical records system in any type of health care facility, including hospital and ancillary records, nursing care facilities, clinics and HMO: planning, organizing, controlling and actuating.

## MRE 4312L MEDICAL RECORDS ADMINISTRIATION IV, LABORATORY

Competency: Experience in planning physical layouts, purchase of equipment, writing of proposals, and cost justifications. Development and analysis of policies, procedures, and work flow. Evaluation of budgets. Development of job descriptions and use of personnel evaluation techniques.

## MRE 4831 DIRECTED PRACTICE III

Orientation of the student to medical record-keeping, filing and retrieval systems of neighborhood clinics, nursing care facilities, and specialized institutions including psychiatric and rehabilative facilities. The last five weeks of this directed practice centers on utilization review procedures for hospitals and nursing care facilities.

## MRE 4830 DIRECTED PRACTICEIV

Observation of the management of a hospital medical records department, with emphasis on administrative and medical staff relationships, including policy and procedure manuals, job descriptions and evaluation, budgeting and cost controls, and medical staff committees.

For course description of the following 5000 and 6000 level courses see School of Business and Organizational Sciences.
HCA 5505 PERSONNEL ADMINISTRATION IN HEALTH INSTITUTIONS
HCA 6113 HEALTH CARE DELIVERY SYSTEMS
HCA 6508 MANAGEMENT IN HEALTH CARE INSTITUTIONS
HCA 6201 FINANCIAL MANAGEMENT OF HEALTH INSTITUTIONS
HCA 6316 LEGAL ASPECTS AND POLICY IN DELIVERY OF HEALTH CARE
HCA 6431 PUBLIC HEALTH ADMINISTRATION
HCA 6719 HEALTH MANAGEMENT ANALYSIS
HCA 6850 HEALTH FACILITY ADMINISTRATION
HCA 5135 INTRODUCTION TO EMERGENCY MEDICAL SYSTEM ADMINISTRATION
HCA 6101 HEALTH CARE ORGANIZATION
HCA 6301 HOSPITAL ADMINISTRATION I
HCA 6302 HOSPITAL ADMINISTRATION II
HCA 6718 APPLICATION OF MANAGEMENT SCIENCE IN HEALTH CARE
HCA 6510 MENTAL HEALTH ADMINISTRATION

## MEDICAL TECHNOLOGY

Margaret Waid, Professor and Chairperson Ann Bessell, Assistant Professor
Sylvia L. Smith, Associate Professor
Joyce T. Robinson, Assistant Professor
Janet L. Zins, Associate Professor
The program offered by the Department provides opportunities for the student to learn the scientific principles which are basic to the development, performance, evaluation, and control of laboratory tests by the medical technologist in health evaluations and patient management.

The program is approved by the National Accrediting Agency of Clinical Laboratory Sciences, the American Medical Association, and the American Society of Clinical Pathologists. A graduate of the program is eligible to apply for examination and certification by the Registry of Medical Technologists as a M.T. (A.S.C.P.), and for licensure as a Technologist by the state of Florida.
Campus Location: Tamiami Campus only.
DEGREE: Bachelor of Science in Medical Technology
LOWER DIVISION PREPARATION:
The student seeking admission to the program should have: (1) completed 90 quarter hours ( 60 semester hours) in an accredited two or four year institution; (2) completed all of the general education requirements; (3) earned a cumulative grade point average of 2.5 (on a scale of 4.0); (4) received a minimum of a " $C$ " grade in each required science course; and (5) completed the following preparatory courses: two semesters of biology with laboratory, two to three semesters of general chemistry with laboratory, two semesters of organic chemistry with laboratory, and two semesters of pre-calculus mathematics (college algebra and trigonometry). (Survey courses in science and mathematics are not accepted.)

## UPPER DIVISION PROGRAM:

The following courses must be completed prior to completion of the medical technology program, and may either precede, or be taken concurrently, with specific phases of the program: general microbiology including laboratory, quantitative analysis including laboratory; immunology; biochemistry (laboratory is elective).

Allernate laboratory experience or proficiency testing may be arranged on an individual basis for: (i) graduales of NAACLS-approved MLT programs; (ii) students certified as MLT (ASCP); (iii) students who have had experience in a clinical laboratory; (iv) students who have had military laboratory training.

The medical lechnology lectures and hospital practicum are required of all students who complete the program.

The program is capped at thirty students. One class of students is admitted each year to begin the program in the fall quarter. Applications for admission to the program and all University applications must be received by the program and the Office of Admissions respectively by February 15 th, to be considered for the fall quarter. Candidates for admission will be interviewed by the faculty. The medical technology required courses and hospital practicum are open only $t o$ majors in the program, and must be taken in the appropriate sequence. Each corequisite and pre-requisite for the subsequent related course must be completed with a satisfactory grade before the following related course may be attempted. A minimum grade point average of 2.5 (in two sequential quarters) must be maintained in order for the student to be permitted to remain in the program. Entrance to the senior practicum depends upon satisfactory evaluation of the student's record by the program faculty.

Medical technology community service courses are taught for the continuing education of community clinical laboratory personnel.


| Spring Quarter |  | 16 |
| :---: | :---: | :---: |
| MLS 4821L | Practicum II | 6 |
| MLS 4630C | Advanced Clinical Chemistry | 5 |
| MLS 4700C | Medical Laboratory Management | 2 |
| MLS 5936C | Seminar III | 1 |
|  |  | Quarter Hours |
| Required Courses: |  | 87(82) |
|  | Junior Year |  |
| Fall Quarter |  | 14(13) |
| MLS 4306C | Clinical Hematology | 2 |
| $\begin{aligned} & \text { MLS } 4306 \mathrm{~L} \\ & \text { or } \end{aligned}$ | Clinical Hematology Laboratory | 3 |
| MLS 4307L | Directed Study in Hematology | 2 |
| MLS 4110 C | Hematology Correlations | 2 |
| MCB 3013 | General Microbiology Lecture and Laboratory | 7 |
| Winter Quarter |  | 15(14) |
| MLS 4405C | Clinical Microbiology | 2 |
| $\begin{aligned} & \text { MLS 4405L } \\ & \text { or } \end{aligned}$ | Clinical Microbiology Laboratory | 3 |
| MLS 4406L | Directed Study in Clinical Microbiology | 2 |
| MLS 4120C | Microbiology Correlations | 2 |
| MLS 4320C | Advanced Hematology | 3 |
| PCB 3233 C | Immunology | 5 |
| Spring Quarter |  | 16(15) |
| MLS 4535C | Blood Banking and Serology | 2 |
| $\begin{aligned} & \text { MLS } 4535 \mathrm{~L} \\ & \text { or } \end{aligned}$ | Blood Banking and Serology Laboratory | 3 |
| MLS 4536L | Directed Study in Blood Banking | 2 |
| MLS 4130 C | Clinical Correlations in Blood Banking | 2 |
| CHM 3120 | Quantitative Analysis (Lecture and Laboratory) |  |
| MLS 3430C | Medical Parasitology | 2 |
| MLS 3430L | Medical Parasitology Laboratory | 1 |
| Summer Quarter |  |  |
| BCH 3033 | Biochemistry (or taken at student convenience) | 5 |
| MLS 4625L | Clinical Chemistry Laboratory ( $1 / 2$ of class) | 4 |
|  | Senior Year |  |
| Fall Quarter |  | 16(14) |
| MLS 4625C | Clinical Chemistry Methods | 4 |
| $\begin{aligned} & \text { MLS } 4625 \text { L } \\ & \text { or } \end{aligned}$ | Clinical Chemistry Laboratory ( $1 / 2$ of class) | 4 |
| MLS 4626L | Directed Study in Clinical Chemistry | 2 |
| MLS 4140 C | Clinical Correlations in Chemistry | 2 |
| MLS 4460C | Advanced Microbiology | 4 |
| MLS 5934C | Seminar I | 1 |
| Winter Quarter |  | 12 |
| MLS 4820L | Practicum 1 | 6 |
| MLS 4530 C | Advanced Blood Banking | 3 |
| MLS 4755C | Laboratory Statistics and Quality Control | 2 |
| MLS 5935C | Seminar II | 1 |
| Spring Quarter |  | 14 |
| MLS 4821L | Practicum II | 6 |
| MLS 4630C | Advanced Clinical Chemistry | 5 |
| MLS 4700C | Laboratory Management | 2 |
| MLS 5936C | Seminar III | 1 |

# NURSING PROGRAM 

Mary Montgomery, Assistant Professor and Coordinator
Mary Cavallo, Associate Professor
Lula Tharpe, Associate Professor
Janice Thomas, Associate Professor

Esther Mooneyhan, Associate Professor<br>Ofelia Clouston, Assistant Professor<br>Esther Coplowitz, Assistant Professor<br>Mercedes Perez-Millan, Visiting<br>Assistant Professor

The Nursing Program is designed as a non-traditional, upper-division undergraduate program leading to the Bachelor of Science degree in nursing.

The curriculum is organized around the use of the nursing process, within a transcultural framework, to assist man to increase the effectiveness of his adaptive responses and promote positive movement along the health-illness continuum.

NOTE: Students must confer with the student advisor to plan a Program of Studies.*

## DEGREE: Bachelor of Science in Nursing

Admission Requirements: (1) 45 quarter hours lower division academic credit in general education and 45 quarter hours lower division academic credit in nursing; (2) current license as a registered nurse; (3) specific courses in general microbiology, general chemistry, human growth and development or equivalents, general psychology and general sociology (effective September 1978).
Remarks: (1) Detailed admission requirements may be obtained from the Admissions Office. (2) All students must carry individual professional liability insurance.
*New admissions to the Nursing Program are not being accepted pending phase-out of existing program by June, 1979 and the development of a new program.
UPPER DIVISION PROGRAM
Quarter Hours
Required nursing courses: 45
NUU $3431 \quad$ Nursing in Evolving Health Care Delivery System 3
NUU 3210C Nursing Process I 4
NUU 3211L Nursing Process I Lab 1
NUR 3222C Nursing Process II 3
NUU 3221 Nursing Process II Lab 2
NUU 4254 (NUR 425) Decision Making in Nursing Practice 2
NUU 4630 Introduction to Nursing Research 3
NUR 4910C Project in Nursing Research 3
NUU 4230C Nursing Process Applied to Individuals 5
NUU 4230L Nursing Process Applied to Individuals Lab 4
NUU 4231C Nursing Process Applied to Families 4
NUU 4231L Nursing Process Applied to Families Lab 4
NUU 4232C Nursing Process Applied to Communities 3
NUU 4232L Nursing Process Applied to Communities Lab 2
NUR 4625C Dimensions of Professional Nursing 2
NOTE: 1 credit equals 3 clock hours per week for laboratory courses

> Quarter Hours

Support courses: 30
ANT 4451
Racial and Cultural Minorities
5
SOC 4745 Minorities
SOW 3703 Self-awareness, Self-modification 5
PCB 4701 Human Systemic Physiology 5
STA 3013 Statistics for Health \& Social Sciences 5 or
STA 3122 Introduction to Statistics I
SOC 3300 The Community 5
HSC 4411 Epidemiology 5
Free Electives 15

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

NUR-Nursing: NUU-Nursing Universals.

## NUR 4335C CRISIS INTERVENTION

Exploration of the current theories of crisis. the process of resolution, and the methodology of intervention Open to non-majors. Nursing elective.

## NUR 4625C DIMENSIONS OF PROFESSIONAL NURSING

A dynamic approach to the nature. scope. and inlluence of new developments in nursing, their impact on practice and application in the health field. Focus is on the development of professional awareness, ethics, and accountability. emphasızing ellective involvement in all lacels of practice. Prerequisite: Senior standing
NUR 4642 INTERNATIONAL DIMENSIONS OF NURSING AND HEALTH CARE
Analysis of torces that atlect health care in any country, with emphasis on nursing practice and education. Nursing elective. Open to non-majors.
NUR 4910C PROJECT IN NURSING RESEARCH
Implementation of project designed in NUU 4630. Data collected is collated, analyzed, and interpreted. Written and verbal reports are given. Prerequisite: NUU 4630.

## NUR 4910C INDIVIDUAL STUDY

(Variable 1-5)
Students are provided with an opportunity to investigate nursing areas of special interest consistent with their career goals. May be repeated once. Permission of instructor required.
NUR 4955 FIELD STUDY: INTERNATIONAL NURSING
On-site sludy of health care, nursing practice and education in another country. Registration by permission of instructor. Nursing majors only. Recommended preparation - NUR 4642. Nursing elective.
NUU 3210C NURSING PROCESS I
An overview of the nursing process: communication interaction processes in nursing; leaching/learning processes, and theories of adaptation applicable to nursing practice. For nursing majors only. Prerequisites: ANT 4451 or SOC 4745: SOW 3703, course in human growth and development, NUU 3431 (may be taken concurrently).
NUU 3211L NURSING PROCESS I - LAB
Concurrent with NUU 3210. Identification and application of theories, concepts and principles introduced in class: practiced in simulated and clinical situations. For nursing majors only
NUU 3221 NURSING PROCESS II - LAB
Concurrent with NUU 3222C. Practice of physical assessment and data collection for nursing history in simulated and ambulatory care settings.
NUU 3222C NURSING PROCESS II
Focus is on assessment of physical, psychological and social variables of health and illness, and the nursing history inherent in the nursing process. For nursing majors only. Prerequisites: PCB 4701, NUU 3210 C . NUU 3211C.
NUU 3431 NURSING IN EVOLVING HEALTH CARE DELIVERY SYSTEM
Analysis of current trends and issues related to the evolution of nursing and nursing roles in the health care delivery system. Open to non-majors.
NUU 4211 DECISION MAKING IN NURSING PRACTICE
Theoretical base of decision making processes to effect nursing intervention for achievement of comprehensive nursing goals. Emphasis on problem solving approach to prolessional and social issues. For nursing majors only. Prerequisites NUU 3431, NUU 32 10C, NUU 3211L. May be taken concurrently with NUU 3222 and NUU 3221L. Open 10 non-majors with consent of instructor.
NUU 4230 C NURSING PROCESS APPLIED TO INDIVIDUALS
Focus is on the use of the nursing process within a transcultural orientation to assist individuals to achieve a state of biopsychosocial equilibrium. Emphases are placed on stresses disruptive to high level wellness, and evaluation of individuals' response and adaptation to illness. For nursing majors only. Prerequisites: Course in epidemiology (prerequisite for this course in general microbiology); and general chemistry or equivalent: NUU 3222C. NUU 3221.
NUU 4230L NURSING PROCESS APPLIED TO INDIVIDUALS LAB
Concurrent with NUU 4230C. Focus is on the use of the nursing process within a transcultural orientation 10 assist individuals to achieve a state of biopsychosocial equilibrium. Emphasis is on application of theory to nursing practice. For nursing majors only. Senior slanding required.
NUU 4231C NURSING PROCESS APPLIED TO FAMILIES
Nursing process in a lamily-centered approach, focusing on acquisition of knowledge, attitudes, and skills to promote high level wellness. For nursing majors only. Prerequisites: NUU 3431, 3210C, 3222C, 4230C

## NUU 4231L NURSING PROCESS APPLIED TO FAMILIES LAB

Focus is on the use of the nursing process within a transcultural orientation to assist individuals to achieve a state of biopsychosocial equilibrium. Emphasis is on application of theory to nursing practice. For nursing majors only Concurrent with NUU 4231C.

## NUU 4232C NURSING PROCESS APPLIED TO COMMUNITIES

Focus on community health provides opportunity to consult and collaborate with consumers and providers in selecting and coordinating health care activities. For nursing majors only. Prerequisites: SOC 3300. NUU 3431, 3210C, 3222C, 4211, 4630, 4910C, 4230C, 4231C.

NUU 4232 NURSING PROCESS APPLIED TO COMMUNITIES LAB

Concurrent with NUU 4232C Clinıcal application of the nursing process applied to communities. For nursing majors only
NUU 4330C EVALUATION OF NURSING PRACTICE
A broad overview of the evaluation process in nursing practice lor improving the quality of patient care. Nursing elective. Open to non-nursing majors.
NUU 4410 ISSUES AND PROBLEMS IN NURSING ADMINISTRATION
Application of principles to current issues and problems in nursing administration occurring with frequency in health care settings. Nursing elective Open to nurses with administrative experience
NUU 4630 INTRODUCTION TO NURSING RESEARCH
Introduction to and application of research principles in the design of study related to contemporary nursing problems. Prerequisite: STA 3013 or equivalent. May be taken concurrently with NUU 4230C and 4230 L .

# OCCUPATIONAL THERAPY 

Beth R. Weiner, Assistant Professor and Acting Chairperson<br>Suze Dudley, Visiting Assistant Professor<br>Karen Bergman, Visiting Assistant Professor<br>Linda Weissman, Visiting Assistant Professor

If you are interested in working with people, helping them to reach their maximum potential, and being of service to people with special problems, perhaps occupational therapy would be the profession in which you could attain these goals.

Occupational therapy is the process of focusing human energies to enhance the quality of life of the individual. Specific techniques are directed towards restoration, reinforcement, and enhancement of participation in life. Focus is on skills and functions essential for adaptation, prevention, and correction, in order to promote and maintain social, physical or mental health. Occupational therapy serves a wide population in a variety of settings such as hospitals and clinics, rehabilitation facilities, long-term care facilities, extended care facilities, sheltered workshops, schools, and community agencies

The program in occupational therapy is accredited by The American Occupational Therapy Association and The American Medical Association.

In order to be admitted to the program in occupational therapy, besides meeting the requirements for admission to the University, an applicant must give evidence of general physical fitness and emotional stability. A personal interview is required

Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science in Occupational Therapy LOWER DIVISION PREPARATION

Required courses: Biology and lab, Zoology and lab, Sociology, General Mathematics, Introduction to Psychology, Human Growth and Development, Theories of Personality.
UPPER DIVISION PROGRAM:
Required Courses:

## Junior Year

## Fall Quarter

OTH 3000
Introduction to Occupational Therapy
3
OTH 3120
Therapeutic Media I
5
PCB 3702
ZOO 3733
Intermediate Human Physiology
5

ZOO 3733L
Human Gross Anatomy I 4
Human Gross Anatomy Lab I 1

Winter Quarter
OTH 3121
PHT 3121
ZOO 3734

CLP 4144

Therapeutic Media II
5
Applied Kinesiology 5
Human Gross Anatomy II
ZOO 3734L Human Gross Anatomy Lab II 1
18

Abnormal Psychology 5

OTH 3420 Therapuetic Techniques in Physical Disabilities 2
OTH 3011 Principles of Practice 2
OTH 3411 Pathology 2
OTH 3421 Physical Disability Theory 3
ZOO 3743 Neuroscience 4
ZOO 3743L Neuroscience Lab 2
OTH 4853 Field Work Experience 2
$\begin{array}{ll}\text { Summer Quarter } & \\ \text { OTH } 3813 & \text { Field Work Experience }\end{array}$

Senior Year
Fall Quarter
OTH 3123 Technology for Occupational Therapy 5
OTH 4320 Psychiatric Occupational Therapy Theory 5
OTH 4422 Physical Disability Theory 5
Winter Quarter
OTH 4190 Disability Evaluation I 5
OTH 4210 Developmental Theory 5
OTH 4260 Disability Evaluation II 5
OTH 4321 Psychiatric Occupational Therapy Theory 5
$\begin{array}{lll}\text { Spring and Summer Quarters } & \\ \text { OTH } 4850 & \text { Field Work Experience }\end{array}$
OTH 4851 Field Work Experience 12
24
Fall Quarter
OTH 4700 Organization and Administration 5
OTH 4750 Rehabilitation Seminar 5
Electives: 5 quarter hours of electives are taken
during the second fall quarter of the senior year
5

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

CLP-Psychology; OTH—Occupational Therapy; PCB—Biological Sciences; PHT-Physical Therapy; ZOO-Biological Sciences.OTH 3000 INTRODUCTION TO OCCUPATIONAL THERAPYHistory and development of the prolession. Philosophy of treatment.
OTH 3011 PRINCIPLES OF PRACTICE(2) (S)Introduction to processes of professional practice in treating functional limitations. Lecture and lab.
OTH 3120 THERAPEUTIC MEDIA Ibiomechanics, anatomy, materials and appliances necessary for labrication, pre- and post-prostheticand orthotic evaluation, checkout procedures and training methods. Prerequisites: ZOO 3733, 3734,3743.
The study ol occupational therapy as related to physical disabilities. Development and status of current treatment techniques. Lecture and lab. Prerequisites: Anatomy, physiology, kinesiology. lab.
OTH 4321 PSYCHIATRIC OCCUPATIONAL THERAPY THEORY II

## OTH 5600 THE STUDY OF GERONTOLOGY AS RELATED TO OCCUPATIONAL THERAPY PRACTICE

A study of the impact of advances in the field of gerontology, and current legislation affecting the profession.
OTH 5760 CURRENT RESEARCH IN OCCUPATIONAL THERAPY
Review of statistical concepts and research procedures in the clinical setting, with in-depth study of the current status of research in occupational therapy.
OTH 5905 INDEPENDENT STUDY
(Variable)

## PHYSICAL THERAPY

## Roger C. Skovly, Associate Professor and Chairperson

## Burton J. Dunevitz, Assistant Professor

Accredited by the American Physical Therapy Association, the program emphasizes a progressive, student centered approach to educating physical therapists. Students progress through a variety of learning experiences designed to develop their evaluation and applied therapeutic skills in treating musculoskeletal, neurological, cardiovascular, and pulmonary disorders.

The Physical Therapy program is community-centered, utilizing clinical physical therapists, medical physicians and other allied medical professionals to complement the teaching efforts of regular faculty.

Graduates of the program are prepared to assume positions in a variety of settings, such as general hospitals, rehabilitation centers, private clinics, home health care facilities, school systems, student health and sports medicine centers. Many physical therapists are self employed.

Students applying to the program must meet general education requirements, and apply both to the University and the physical therapy program. Enrollment is limited, admission is selective, and acceptance to the University does not assure entrance to the Physical Therapy program. Deadline for receiving applications is December 31.

Required Courses: at least 90 quarter hours ( 60 semester hours) of acceptable college credit; at least one academic year of science coursework (with laboratory) in the area of biology or zoology, chemistry and physics; one year of psychology; a minimum grade average of 2.85 in the above required coursework; a minimum 2.75 overall GPA.
UPPER DIVISION PROGRAM:
Required Courses:

Junior Year
$\begin{array}{ll}\text { Fall Quarter } \\ \text { PCB } 3703 & \\ 4\end{array}$
PCB 3703L Human Physiology Lab I 1
PHT 3001 Introduction to Physical Therapy 2
PHT 3122 Kinesiology I 4
ZOO 3733 Human Gross Anatomy I 4
ZOO 3733L Human Gross Anatomy Lab I 2

Summer Quarter

Fall Quarter

Spring Quarter

Summer Quarter
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$\begin{array}{ll}\text { Winter Quarter } \\ \text { PCB } 3704 & 4\end{array}$
PCB 3704L Human Physiology Lab II 1
PHT 3123 Kinesiology II 3
PHT 3202 Basic Therapeutic Skills 4
ZOO 3734 Human Gross Anatomy II 4
ZOO 3734L Human Gross Anatomy Lab II 2
Spring Quarter
PHT 3133C Musculoskeletal Evaluation and Lab
PHT 3133C Musculoskeletal Evaluation and Lab 6
PHT 3300 Physical Therapy and Human Disorders 4
PHT 3803 Clinical Clerkship I 3
ZOO 3743 Neuroscience 5
ZOO 3743L Neuroscience Lab 2
PHT 3231 Rehabilitation 3
PHT 3232C Prosthetics and Orthotics 3
PHT $3310 \quad$ Orthopedic Surgery 4
PHT 3311 Clinical Orthopedics 3
PHT 3812 Clinical Clerkship II 3
Senior Year
PHT 3400 Emotional Aspects of Physical Disability 2
PHT 4141 Evaluation of the Developing Child 3
PHT 4235C Electrodiagnosis 4
PHT 4312 Neurology 3
PHT 4313 Clinical Neurology 2
PHT 4822 Clinical Clerkship III 3
$\begin{array}{cl}\text { Winter Quarter } \\ \text { PHT 4823 } & \\ \text { PHT 4234C } & 3 \\ 6\end{array}$
PHT 4234C Neurophysiologic Techniques 6
PHT $4510 \quad$ Organization and Administration 5 PHT $4932 \quad$ Research Methods and Design 2 $\begin{array}{llc}\text { PHT } 4824 & \text { Clinical Internship } & 12 \\ \text { PHT } 4905 & \text { Independent Study } & (1-6)\end{array}$
PHT 4905 Independent Study (1-6) $-$

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## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

PCB-Biological Sciences; PHT-Physical Therapy; ZOO-Biological Sciences.PHT 3001 INTRODUCTION TO PHYSICAL THERAPYand motion analysis of normal subjects. For occupational therapy students.

## PHT 3122 KINESIOLOGY I

(4) (F)
A sludy ol anatomical, physiological and biomechanical principles as they relate to body movement: coverage of upper exiremily.

## PHT 3123 KINESIOLOGY II

(3) (W)
A study of the biomechanical principles related to the analysis of motion of the trunk, lower extremity, and normal gatt.
PHT 3133C MUSCULOSKELETAL EVALUATION
(6) (S)
Laboratory experiences in measuring and recording the physical status of the musculoskeletal system, using the manual means of palpation, movement, muscle strength lesting, goniometry, and $x$-ray. Abnormal gatt patterns and posture evaluation will be presented.
PHT 3202C BASIC THERAPEUTIC SKILLS
(4) (W)
A sludy of the physiological ratıonale for the use of the electrophysiological modalities, therapeutic exercise, massage transters, and basic gait training, in a lecture and laboratory setting.

PHT 3231 REHABILITATION
(3) (SS)

A study of functional evaluation and interpretation, treatment program planning, and total treatment of the severely physically disabled, including cardiac and pulmonary rehabilitation programs.

## PHT 3232C PROSTHETICS AND ORTHOTICS

(3) (SS)

A presentation of the biomechanics, anatomy, and appliances necessary to the evaluation, prescription, labrication and use of prosthetic and orthotic devices.
PHT 3300 PHYSICAL THERAPY AND HUMAN DISORDERS
(4) (S)

Lectures and media presentations related to human disorders typically seen within the practice of physical therapy
PHT 3310 ORTHOPEDIC SURGERY
(4) (SS)

Multimedia lectures and patient case studies presented by physicians, covering evaluation and (surgical and non-surgical) management of orthopedic patients.
PHT 3311 CLINICAL ORTHOPEDICS
(3) (SS)

Correlated with Orthopedic Surgery (PHT 3310): applications of physical therapy evaluation, treatment and management procedures for patients referred to physical therapists by physicians.
PHT 3400 EMOTIONAL ASPECTS OF PHYSICAL DISABILITY
Examines attitudes of physical therapists toward disability; emotional reactions of patients to their own disability; and emotional disorders common to patients treated by physical therapists.
PHT 3812 CLINICAL CLERKSHIP II
(3) (SS)

Extension of PHT 3801.
(3) (F)

PHT 4141 EVALUATION OF THE DEVELOPING CHILD
A study of the neuromuscular development characteristics of the child; information necessary as prerequiste to Neurophysiologic Techniques (PHT 4234C).
PHT 4234C NEUROPHYSIOLOGIC TECHNIQUES
(6) (W)

A study and application of the exercise techniques of Bobath, Rood, Brunnstrom, Knott and Voss to the treatment of children and adults with neurophysiologic deficits.
PHT 4235C ELECTRODIAGNOSIS $\quad$ (4) (F)
A study of electromyography and other electrical testing procedures for neuromuscular disorders; also, a study of basic acupuncture, transcutaneous stimulation, and biofeedback.
PHT 4312 NEUROLOGY
(3) (F)

Taught by community neurologists, the course covers the evaluation and investigation of neurological disorders typically seen by a physical therapist.

## PHT 4313 CLINICAL NEUROLOGY

(2) $(F)$

Correlated with Neurology (PHT 4312): applications of physical therapy evaluation, treatment and management procedures for patients referred to physical therapists by physicians.

## PHT 4510 ORGANIZATION AND ADMINISTRATION

(5) (S)

A study in management of physical therapy delivery systems and current health trends affecting the profession of physical therapy.
PHT 4822 CLINICAL CLERKSHIPS III (3) (F) Extension of PHT 3801.
PHT 4823 CLINICAL CLERKSHIPS IV
(3) (W) Extension of PHT 4822.
PHT 4824 CLINICAL INTERNSHIP Extension of PHT 4825.
PHT 4825 CLINICAL INTERNSHIP II
Supervised full-time clinical experience, designed to afford the student the opportunity to gain experience
in the total care of patients, in the admınistration and supervision of a physical therapy department, and in his chosen area of specialization
PHT 4905 INDEPENDENT STUDY
(1-6) (S,SS,F)
(By permission pl physical therapy faculty). The student will select a particular aspect of physical therapy or a related field for in-depth independent study.
PHT 4932 RESEARCH METHODS AND DESIGN
(2) $(W)$

An introduction to research theory and methods. collection and analysis of data, and methods of presentation and interpretation. as they apply to physical therapy

## SOCIAL WORK

L. Yvonne Bacarisse, Associate Professor and Chairperson
Monte Koppel, Professor
Rachel Marks, Professor
Rosa Jones, Associate Professor Julia Nooe, Associate Professor

Magaly Queralt, Associate Professor Betsy Smith, Associate Professor
Raymond Berger, Assistant Professor
Esther Eichenbaum, Assistant Professor
Mary Helen Hayden, Assistant Professor
Virginia E. Pendergrass, Assistant Professor

The program offers an integrated educational experience that combines the theoretical and the practical. It is designed to prepare the student for beginning professional practice in social work, for entrance into a graduate school of social work, and for participation in society as an informed citizen.

The six-quarter program includes a sequence of academic courses and field instruction under qualified supervision in social agencies in South Florida.

The program is accredited by the Council on Social Work Education. Campus Location: Tamiami and North Miami Campuses. DEGREE: Bachelor of Science in Social Work

## LOWER DIVISION PREPARATION:

The student desiring to major in social work must have completed the Associate of Arts degree at a Florida public community college, or equivalent work from an accredited institution.

Required Courses: Before admission to the social work program, the student must complete courses in introductory psychology, statistics, American government, and principles of economics, and two courses in sociology.

UPPER DIVISION PROGRAM:
Quarter Hours
Required Courses: 75
Core Courses: 70
SOW 3113 Dynamics of Human Behavior in the Social Environment I

5
SOW 3232 Social Welfare Policy and Services I 5
SOW 3313 Methods of Social Work Practice I 5
SOW 3511 Field Experience I 9
SOW 3522 Integrative Field Seminar I $\dagger$
SOW 3703 Self-Awareness, Self-Modification, and Service 5
SOW 4125 Dynamics of Human Behavior in the Social Environment II

5
SOW 4233 Social Welfare Policy and Services II 5
SOW 4322 Methods of Social Work Practice II 5
SOW 4332 Methods of Social Work Practice III 5
SOW 4403 Methods of Community Research 5
SOW 4512 Field Experience II 9
SOW4523 Integrative Field Seminar II 1
SOW 4675 Social Work Philosophy and Values 5
Courses in Another Discipline

Remarks: Students should be aware that courses in this program are sequenced. Students must check with their advisors for pre- and co-requisite courses.

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIX

SOW-Social Work.
SOW 3113 DYNAMICS OF HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT I
(5) $(F, W, S)$

An examination of the psychosocial foundations of social work practice, focusing on the analysis of factors affecting human development and functioning in relation to social systems. Prerequisites: PSY 3013, DEP 3000. or their equivalents.
SOW 3203 HISTORICAL AND PHILOSOPHICAL PERSPECTIVES OF SOCIAL WELFARE SERVICES
This course is a sequential and cumulative examination of social welfare and the changing role of social work. The locus is on creating awareness in the individual in relation to the question, "How do we want to live?"
SOW 3232 SOCIAL WELFARE POLICY AND SERVICES I
(5) $(F, W, S)$

This course considers the major social welfare programs in the United States: how they emerged and developed. and how they operate today. Analysis of financial resources, decision-making processes, and structure of delivery systems serves as a basis for understanding policy assessment.
SOW 3313 METHODS OF SOCIAL WORK PRACTICEI
(5) (F,W,S,SS)

An overview of social work intervention for the beginning practitioner. Generic values, attitudes and processes in client-worker relationship-building are discussed and analyzed. Authentic case material is utllized to acquaint students with assessment, modes of intervention, goal setting, and implementation. Prerequisites: SOW 3113, SOW 3232, SOW 3703, or their equivalents.

## SOW 3350 TECHNIQUES OF INTERVIEWING

A competency-based course designed to provide students with basic interviewing skills. Emphasis is on acquisition of interview behavior rather than theory. Audio and videotaping, role-playing, simulations, and micro-counseling training methods will be utilized. Prerequisites: SOW 3113 and permission of instructor.
SOW 3511 FIELD EXPERIENCE I
(9) F,W,S,SS)

This is the first 210 -clock hour social work practice experience in service to individuals, groups, and/or communities. Placement in an agency or institution is for the purpose of gaining a first-hand awareness of needs and behavioral responses, as well as a knowledge base of expectations, responsibilities, and activities involved in the delivery of social services. This experience facilitates the development of beginning social work skills, and a continually growing awareness of self as a helping person. Majors only. Prerequisites: SOW 3113. SOW 3232. SOW 3313, SOW 3703, SOW 4125, and 4403, or their equivalents. Corequisites: SOW 3522 and SOW 4322.

## SOW 3522 INTEGRATIVE FIELD SEMINAR I

(1) (F,W,S,SS)

This course is one-hour seminar, to be taken concurrently with SOW 308, designed to analyze the field experience and integrate theory and practice. It provides an arena for students from various settings to come together in order to provide a richer understanding of social services on all levels. Majors only. Prerequisites: SOW 3113, SOW 3232, SOW 3313, SOW 3703, SOW 4125, and 4403, or their equivalents. Corequisites: SOW 3511 and SOW 4322.
SOW 3703 SELF-AWARENESS, SELF-MODIFICATION, AND SERVICE
(5) (F,W,S)

An experience oriented course directed toward helping students become aware of their own intrapersonal and interpersonal processes and how these may influence their skill and effectiveness as professional helping persons. Emphasis is on personal learning.

## SOW 3949 CO-OPERATIVE EDUCATION - SOCIAL WORK

(5) (F,W,S,SS)

A special program permitting social work majors to work in social agencies during alternate quarters, up to a maximum of two quarters. Written reports and supervisory evaluations will be required. This experienc may not be substituted for SOW 3511 or SOW 4512. Prerequisites: Three social work courses and permission of Chairperson.
SOW 4125 DYNAMICS OF HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II
(5) (F,W,S)

Within the framework of the life cycle, the content of this course focuses on the study of selected client systems Irequently encountered by social work practitioners. Emphasis is placed on UNDERSTANDING bio-psycho-socio-cultural factors contributing to problems. Prerequisite: SOW 3113 or its equivalent.

This course considers characteristics and processes common to organizations within the social service
system, and the impact oi policy decisions on individuals and groups. A systems approach will be used as a basis for understanding strategies for innovation and change. Prerequisites: SOW 3511, SOW 3522, and SOW 4332.

## SOW 4242 CHILD WELFARE

(5) (F,W,S,SS)

This course deals with legal principles upon which the child welfare system has been built; and the policies and issues that arise in planning services for children in their own homes - homemaker service, day care, and protective services - and in various types of substitute care - foster or adoptive homes and institutions. Prerequisites: SOW 3113 and SOW 3232, or their equivalents.
SOW 4322 METHODS OF SOCIAL WORK PRACTICE II
(5) (F,W,S,SS)

This generic skills course is designed to provide students with the theories and techniques of social work practice as applied to small groups. Prerequisiles: SOW 3313 and SOW 4125 or their equivalents. Corequistes: SOW 3511 and 3522
SOW 4332 METHODS OF SOCIAL WORK PRACTICE III
(5) (F,W,S,SS)

Provides an understanding of planned change at the community level from a social work perspective, as well as strategies and methods utilized in community organization praclice. Identification of generalist skills and prevalent models of community organization in social work praclice. Prerequisites: SOW 3511, SOW 3522. SOW 4322. Corequisites: SOW 4512 and 4523.

## SOW 4403 METHODS OF COMMUNITY RESEARCH

(5) $(F, W, S)$

Introduction to basic skills of research for beginning social work practitioners: background searching, definition of variables, sampling, analysis of dala, data depiction, and report writing. This course is also designed to enable social work students to read research articles more critically, understand reports of resulls, and evaluate evidence for hypotheses. Prerequisites: SOW 3113 and SOW 3232.

## SOW 4512 FIELD EXPERIENCE II

(9) (F,W,S,SS)

This second 210 -clock hour supervised social work practice experience enables the student to progress loward a higher level of awareness and understanding of needs and behavioral responses. Generic skills are applied more seleclively with increasing interest and proficiency in one or more practice areas. This second placement affords the student an opportunity to become a more effeclive part of the social service delivery system. Majors only. Prerequisites: SOW 3511, SOW 3522, and SOW 4322. Corequisites: SOW 4332 and SOW 4523

## SOW 4514 FIELD EXPERIENCE III

(5 or 10) (F,W,S,SS)
This third supervised social work practice experience makes it possible for students to sharpen diagnostic skills and to refine planning and implementation of appropriate helping techniques as these relate to individuals, groups, and/or communities. Majors only. Prerequisites: SOW 4512, SOW 4332, and SOW 4523. or their equivalents.

SOW 4523 INTEGRATIVE FIELD SEMINAR II
(1) (F,W,S,SS)

This course is a one-hour seminar to be taken concurrently with SOW 4512, designed to analyze the field experience and integrate theory and practice. It provides an arena for students from various settings to come logether in order to provide a richer understanding of social services on all levels. Majors only. Prerequisites: SOW 3511, SOW 3522, and SOW 4322, or their equivalents. Corequisites: SOW 4332 and SOW 4512.
SOW 4621 CRISES IN THE LIVES OF WOMEN
Introduction to special experiences in the lives of women which might lead women to seek supportive counseling or other professional assistance. Topics include rape, abortion, sex discrimination, menopause, childbirth.

## SOW 4905 INDIVIDUAL STUDY

(1-10) (F,W,S,SS)
Individually selected program of supervised personal study related to specific social issues. Prerequisite: Permission of instructor.
SOW 4675 SOCIAL WORK PHILOSOPHY AND VALUES
(5) (F,W,S)

This course is designed to investigate philosophical and social thought in order to explore concepts of socia and to assist students in the idenlification and clarification of values inherent in the social work profession. Majors only. Prerequisites: SOW 4512, SOW 4523, and SOW 4332.

## SOW 4949 CO-OPERATIVE EDUCATION - SOCIAL WORK

(5) (F,W,S,SS)

A continuation of SOW 3949. Prerequisites: SOW 3949 and permission of Chairperson.

## SOW 5217 SEMINAR IN SOCIAL WORK

An exploration of various critical issues of concern to the social work protession. Prerequisite: Permission of instructor.

## SOW 5272 SOCIAL WELFARE: CROSS-CULTURE COMPARISONS

A seminar in which sludents will analyze and compare social welfare policy, problems, and programs in various countries. This course is designed for seniors and graduale studenis. Prerequisiles: SOW 3232 and SOW 4233. or permission of the instructor.

## SOW 5354 TECHNIQUES FOR PREVENTION AND EARLY INTERVENTION

(5) (F,S)

This course has been designed to enable the student to learn about crisis intervention etiology, structure and theory so he/she may acquire some beginning practical knowledge in a sub-specialty. This course is designed lor seniors and graduale students. Prerequisites: SOW 3313 and SOW 4332, or permission of instructor.

Introduction to experımental and quasi-experimental designs and measurement techniques suitable for evaluatıon of social service programs. Field experıence in defining agency or program goals objectively and designing an actual program evaluation are provided. This course is designed lor seniors and graduate students. Prerequisite: SOW 4403 or equivalent.

Implementation of program evaluation proposal generated in SOW 5435. This seminar will provide actual field experience in data collection, analysis, and program evaluation report writing. Prerequisite: SOW 5435.

## SOW 5643 UNDERSTANDING THE PROCESS OF AGING

This course is designed to develop an understanding of the multıple psychosocial problems experienced by the aging person, and the impact of such on the older person's physical and emotional well-being. Such an understanding will facilitate the helping person's ability to evaluate and intervene with behavior responses exhibited by the elderly Prerequisite: Senior or graduate slanding.

## SOW 5684 PROFESSIONAL VALUES IN THE HUMAN SERVICES

This course is designed to assist students in identification, exploratıon, and experiencing the values inherent in prolessionalism, as they are manifested in the various human service professions. Material will be presented in a didactic and experiential manner with a heavy emphasis upon student involvement in the value clarification process. Prerequisite: Senior or graduate standing

## SOW 5914 INDEPENDENT RESEARCH

Individuatly selected program ol supervised data collection and analysis. Prerequisite: SOW 4403 or permission of instructor.


# SCHOOL OF HOSPITALITY MANAGEMENT 

Gerald W. Lattin, Dean<br>Anthony G. Marshall, Associate Dean and Professor<br>William J. Morgan, Jr., Professor<br>Norman Ringstrom, Professor<br>Rocco Angelo, Associate Professor<br>Michael Hurst, Associate Professor<br>Richard A. Huse, Associate Professor<br>Charles IIvento, Associate Professor<br>Dennis A. Marzella, Associate Professor<br>Leonard Berkowitz, Assistant Professor<br>Percival Darby, Assistant Professor<br>Robert Daun, Assistant Professor<br>Fritz Hagenmeyer, Assistant Professor

Elisa Moncarz, Assistant Professor<br>Gregory Perry, Assistant Professor<br>Irving Sicherman, Assistant Professor<br>Peter Martini, Lecturer<br>Steven Moll, Lecturer<br>Edwin B. Dean, Visiting Assistant Professor<br>Gui Govaert, Visiting Assistant Professor<br>David Grier, Visiting Assistant Professor<br>Kevin Robson, Visiting Assistant Professor<br>Ted White, Visiting Assistant Professor<br>Marshall Kosiner, Visiting Assistant Professor

The School of Hospitality Management offers bachelor's and master's programs that combine practical experience with classroom theory to assist the student to gain the understandings, skills, and techniques needed to qualify for job opportunities, or to achieve his or her career goals in the growing hospitality industry.

With the cooperation of industry executives, the School has created an internship program which literally utilizes the hotels, motels, restaurants, clubs, airlines, travel agencies and cruise lines as practice labs for students. The advanced phase of the internship program provides each student a structured and closely supervised management experience normally not available to a student until he or she has entered the industry after graduation.

An active Industry Advisory Board - which includes outstanding executives in the hotel, food and travel industries - works regularly with the faculty, staff and students of the School to formulate and update a curriculum that is current, flexible, and related to the needs of the hospitality industry.

The School has been designated a Program of Distinction by the Board of Regents.

## ADMISSION

## UNDERGRADUATE

Any student who has completed two years of college ( 60 semester hours, 90 quarter hours) may apply for admission. Full credit will be granted for both Associate of Arts and Associate of Science degrees. One may enroll on either a full-time or part-time basis.

It is not necessary to have been previously enrolled in a hotel or restaurant program. The curriculum will provide the specialized professional education to equip the student for a career in hospitality management. Students with training in liberal arts, business, education, or technology, for example, are qualified to enroll in the program.

## GRADUATE

Any student is eligible for admission to graduate study who holds a bachelor's degree from an accredited institution, and has attained a combined score of 1000 on the Graduate Record Examination (verbal and quantitative aptitude sections), or maintained a " B " average in all upper division work.

A candidate for the master's degree whose undergraduate program was in hotel and restaurant management must complete 45 quarter hours of graduate study plus the research project. The candidate with a bachelor's degree in any other academic area must complete an additional core of professional hotel and food service courses.

The exact amount of additional work will vary with the undergraduate background of the candidate, but will not exceed 40 quarter hours including the required managerial internship program. A maximum of 15 quarter hours of graduate credit may be transferred from any other university or from the graduate programs of this University.

Additional information on admission procedures may be found in the Admission section of the Catalog.

## SPECIAL STUDENTS

A number of persons currently employed in the hospitality field may not have the educational requirements to meet degree admission standards, but may be interested in enrolling in certain specific courses to improve their skills and to enhance their chances for promotion. Any person currently employed in the field may register as a Special Student for a maximum of 10 credit hours per quarter.

## UNDERGRADUATE STUDY

Bachelor's degree programs are offered in general hospitality management; hotel and motel management; international hotel management; restaurant and food service management; tourism and travel management.
Campus Location: Tamiami Campus only.
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: Principles of Accounting is a prerequisite for taking course work in the accounting and finance areas. The student who has not taken this prerequisite will be required to take this course during his or her first year at the University.
Recommended Courses: Courses in accounting, economics, psychology and public speaking.
UPPER DIVISION PROGRAMS:

## *GENERAL HOSPITALITY MANAGEMENT

|  |  | Quarter Hours |
| :---: | :---: | :---: |
| Required Courses: Management Accounting |  |  |
| Finance \& Information Systems |  |  |
| HFT 3453 | Operations Control for Hospitality Industry Management | 5 |
| $\begin{gathered} \text { HFT } 3423 \\ \text { or } \end{gathered}$ | Hospitality Accounting Information Systems | 5 |
| HFT 3413 | Lodging Systems \& Procedures | 5 |
| HFT 4464 | Interpretation of Hospitality Financial Statements | 5 |
| HFT 4654 | Financial and Legal Aspects of Real Estate Development | 5 |
| HFT 4474 | Profit Planning and Decision-Making in the Hospitality Industry | 5 |
| Food and Beverage Management |  |  |
| FSS 3221 | Introductory Commercial Service Production |  |
| FSS 3234 | Volume Feeding Management | 5 |
| HFT 3263 | Restaurant Management | 5 |
| FSS 3243 | Basic Meat Science | 5 |
| Administration |  |  |
| HFT 3603 | Law as Related to the Hospitality Industry | 5 |
| HFT 3945 | Advanced Internship in Hospitality Management | 5 |
| HFT 3503 | Marketing of Hospitality Services | 5 |

- In addition to the admission policies for programs listed above, the School of Hospitality Management offers a special educational program, leading toward a Bachelor of Science degree with a major in General Hospitality Management, for some sludents who have nol yel completed iwo years of college, but who have at least: a) a high school diploma; b) a minimum of 40 quarter hours of credit earned through documented life experience, CLEP, previous college work, or military schools; c) permission of the Dean atter a personal interview - and who will enroll concurrently in a junior college to satisty their remaining general education requirements. Specifically, the students will complete at least 90 quarter hours in addition to the program above and including 9 quarter hours each in the areas of social science, natural science, English composition and humanities; 4 quarter hours in mathematics, and 14 quarter hours of electives in the above areas. Enrolled students are required to make satistactory progress toward completion of both the general education requirements and the required professional courses, and to satisly all other University requirements for a bachelor's degree. Progress will be monitored each quarter or semester by the School's academic advisor and all general education requirements must be completed prior to the student's last quarter of residence.


# HOTEL AND MOTEL MANAGEMENT 

Quarter Hours

| Information Systems |  |  | 25 |
| :---: | :---: | :---: | :---: |
| HFT 3453 | Operations Control for Hospitality Industry Management | 5 |  |
| $\begin{gathered} \text { HFT } 3423 \\ \text { or } \end{gathered}$ | Hospitality Accounting Information Systems | 5 |  |
| HFT 3413 | Lodging Systems \& Procedures | 5 |  |
| HFT 4464 | Interpretation of Hospitality Financial Statements | 5 |  |
| HFT 4654 | Financial and Legal Aspects of Real Estate Development | 5 |  |
| HFT 4474 | Profit Planning and Decision-Making in the Hospitality Industry | 5 |  |
| Food and Beverage Management |  |  | 20 |
| FSS 3221 | Introductory Commercial Food Service Production | 5 |  |
| FSS 3234 | Volume Feeding Management | 5 |  |
| HFT 3263 | Restaurant Management | 5 |  |
| FSS 3243 | Basic Meat Science | 5 |  |
| Administration |  |  | 30 |
| HFT 3603 | Law as Related to the Hospitality Industry | 5 |  |
| HFT 3941 | Internship in Hospitality Management | 5 |  |
| HFT 3945 | Advanced Internship in Hospitality Management | 5 |  |
| HFT 3503 | Marketing of Hospitality Services | 5 |  |
| HFT 4234 | Union Management Relations in the Hospitality Industry | 5 |  |
| MAR 3023 | Principles of Marketing | 5 |  |
| Electives: |  |  | 25 |

Electives:

# RESTAURANT AND FOOD SERVICE MANAGEMENT 



## TOURISM AND TRAVEL MANAGEMENT

Quarter Hours
Required Courses: Management Accounting, Finance \&Information Systems15
HFT 3423 Hospitality Accounting Information Systemsor
HFT 3413 Lodging Systems \& Procedures ..... 5
HFT 4465 Interpretation of Travel and Tourism Management Financial Statements ..... 5
HFT 4474 Profit Planning and Decision-Making in the Hospitality Industry ..... 5
Administration
Law as Related to the Hospitality Industry HFT 3603 ..... 525
Introduction to Hospitality Management HFT 3000 ..... 5
HFT 3503 Marketing of Hospitality Services ..... 5
HFT 4234 Union Management Relations in the Hospitality Industry ..... 5
MAR $3023 \quad$ Principles of Marketing ..... 5
Travel and Tourism Management
HFT 3700 Fundamentals of Tourism ..... 535
HFT 3722 Retail Travel Agency Management ..... 5
HFT 3753 Convention and Trade Show Management ..... 5
HFT 3713 International Travel and Tourism ..... 5
HFT 3941 Internship in Hospitality Management ..... 5
HFT 3945 Advanced internship in Hospitality Management ..... 5
GEA 3000 World Regional Geography ..... 5
Electives: (Five hours must be taken in transportation) ..... 25
GRADUATE STUDY HOTEL AND FOOD SERVICE MANAGEMENT
Campus Location: Tamiami Campus only DEGREE: Master of Science in Hotel and Food Service Management
Required Core Courses: ..... 30
HFT 6246 Organizational Behavior in the Hospitality Industry ..... 5
HFT 6586 Research and Statistical Methods ..... 5
HFT 6477 Financial Management for the Hospitality Industry ..... 5
HFT 6296 Seminar in Hospitality Management ..... 5
HFT 6697 Hospitality Law Seminar ..... 5
HFT 6916 Hospitality Industry Project ..... 5
Electives: (5000 and 6000 level) ..... 20

## COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

FOS—Food Science; FSS—Food Service Systems; HFT—Hospitality, Food, Tourism.

## UNDERGRADUATE

FOS 4201 SANITATION IN FOOD SERVICE OPERATION
The causes and prevention of lood poisoning are stressed. Emphasis is placed on the current problems confronting the industry, with recent food developments as they relate to sanitation. Curriculum developed by the National Sanitation Foundation is included.
FOS 4245 ADVANCED MEAT SCIENCE
An advanced course which considers the variabie lactors of meat, poultry and fish utilization. Emphasis is placed upon newer techniques in purchasing, maximizıng yields, and providing products in unique form. The use of TVP and other analogs is considered, as are the lunctions ol the specialized commissary-type of meat processing plants. Guest speakers will be utilized, and field trips to protein processing plants will be made, to emphasize major points. Prerequisite: FSS 3243
FSS 3221 INTRODUCTORY COMMERCIAL FOOD SERVICE PRODUCTION
Provides an introduction to commercial food preparation, nutrition, standard product identification, storage and supervisory techniques in the area of lood preparation. Course includes classroom instruction, demonstrations and actual cooking experience.

## FSS 3232 INTERMEDIATE QUANTITY FOOD PRODUCTION TECHNIQUES

An advanced commercial food production course which provides the student with the opportunity to achieve competence and to develop techniques in the garnishing, pastry, serving, and convenience food areas. Prerequiste: FSS 3221 or equivalent.
FSS 3234 VOLUME FEEDING MANAGEMENT
The facilities of various types of large quantity food operations are utilized, to provide the student with both production and managerial experience. Students will be rotated through production stations and, as managers, will be required to plan menus, supervise preparation and service, handle customer relations and keep accurate accounting records on the protit and loss phases of the operation. Staffing, merchandising and cost control procedures are integral parts of the course. Prerequisite: FSS 3221 or equivalent.

## FSS 3241 CLASSICAL CUISINE

Provides an opportunity for students skilled in cookery to expand their knowledge of food preparation into the area of world-respected, traditional dishes. The course includes lecture, demonstration, and actual preparation of classical dishes. The students will utilize conventional methods of preparation as well as convenience foods. Prerequisite: FSS 3221
FSS 3243 BASIC MEAT SCIENCE
Fundamentals of meat: quality yield, utilization of cuts, availability, costing, buying, inventorying, packaging, labor, and trends.
FSS 3252 FOOD AND BEVERAGE TECHNOLOGY
A course designed to explore principles, and permit students the opportunity to master procedures, in the area of lood and beverage technology
FSS 3272 BEVERAGE MANAGEMENT
An introduction to the identification, use and service of wines and other alcoholic beverages, with an indepth analysis of the various elements of beverage operations including purchasing, control, merchandising, and bar management. Field trips are made to hotels and restaurants to demonstrate salient operating principles.
FSS 4105 PURCHASING AND MENU PLANNING
Basic information on sources, grades and standards, criteria for selection, purchasing, and storage for the major foods, including the development of specifications. Consideration of the menu pattern with particular emphasis on costing, pricing, and the work load placed on the production stafi. Item analysis and merchandising features are emphasized.
FSS 4315 INSTITUTIONAL FOOD SERVICE MANAGEMENT
This course brings together basic management techniques and controls that are useful in the area of institutional feeding programs. Federal and state government regulations are studied. Special emphasis is given to hospital food service direction and the National School Lunch Program.
FSS 4333 IN-FLIGHT FOOD SERVICE MANAGEMENT
An introduction to the concepts and managerial techniques specifically related to the in-flight food service segment of the hospitality industry. Students will be exposed to a comprehensive study of contract purchasing, contract negotiations, system menu planning, volume food production, staff scheduling, industry pricing methods, product specitication factors, client and employee relations, and security control systems; and familiarized with specific and specialized food service equipment, equipment routing and balance, and transportation methods and procedures.
FSS 4431 FOOD FACILITY LAYOUT AND DESIGN
Delines and explains concepts, principles and procedures in evaluating and/or developing varied commercial food service facilities that will increase profit by reducing investment and operating cost and/or by increasing capacity. Actual installations are intensively reviewed. Current trends in food service methodology and technology are studied in detail, and food service equipment manufacturing processes and distribution economics are observed and evaluated
FSS 4614 FOOD AND BEVERAGE MERCHANDISING
This is an application of marketing and advertising principles to the specific area of food and beverage for hotels and restaurants.

## FSS 6365 FOOD SERVICE SYSTEMS

Principles of system analysis applied to the food service industry. Attention is given to the organization of modern lood production, preparation, and distribution systems. Case study problems require application of economic and management principles lor solution.

## FSS 6452 ADVANCED FOOD SERVICE DESIGN OPERATIONS

Advanced planning. Frogramming and project documentation for commercial food service facilities. Spatial, environmental and eleciro-mechanical design factors are stressed, with particular emphasis on efficiency modulation and investment aspects. Recommended: HFT 3343 or FSS 4431
FSS 6834 FOOD SERVICE RESEARCH
The planning, executing, and reporting of an individual research project dealing with significant problems in food service Students demonstrate an understanding of research techniques through data collection, evaluation and interpretation

## HFT 3000 INTRODUCTION TO HOSPITALITY MANAGEMENT

A survey course providing an overview of the industry: its history, problems and general operating procedures. Operating executives from the fields of hotel, restaurant, food service, travel and tourism will be featured perıodically.
HFT 3203 FUNDAMENTALS OF MANAGEMENT IN THE HOSPITALITY INDUSTRY
A basic course in general management to acquaint the student with theories and principles of organization, the tools of managerial decision-making, and the management process, with particular reference to the hospitality industry.
HFT 3263 RESTAURANT MANAGEMENT
An analysis of the principal operating problems in the restaurant field. Procedures, approaches and techniques of management are explored and developed as they relate to the various categories of restaurants ranging from fast lood to gourmet. Industry leaders will present successful concepts of restaurant operation
HFT 3313 HOSPITALITY PROPERTY MANAGEMENT
The problems of cost and operation of pest control, security, parking, general cleaning and upkeep, laundry, fire prevention. pools, tennis courts and care of guest rooms and public space, with emphasis on equipment. personnel. and modern innovations.
HFT 3323 PHYSICAL PLANT MANAGEMENT
A comprehensive survey of engineering, maintenance and efficiency control in hotels, restaurants and institutions.
HFT 3343 HOTEL AND RESTAURANT PLANNING AND DESIGN
Considers analysis, evaluation and scheduling of the economic, technical, aesthetic and merchandising factors involved in the planning, programming and design stages of hotels and restaurants. Actual hotel and restaurant projects will serve as the basis for discussion and student project work.
HFT 3403 INTRODUCTION TO MANAGEMENT ACCOUNTING FOR THE HOSPITALITY INDUSTRY
Introduction and practice in accounting processes, and the principles of hospitality management accounting. Prepares the student for work in advanced accounting and financial management. Required for students who have not completed an introductory accounting course.
HFT 3413 LODGING SYSTEMS AND PROCEDURES
Detalled examination of the lunctions and procedures utilized in servicing the guest of a lodging establishment, contrasting traditional techniques and modern systems. Extensive use of the School's Mobydata minicomputer hospitality system to demonstrate "state-of-the-art" concepts. Prerequisite: HFT 3403.

## HFT 3423 HOSPITALITY ACCOUNTING INFORMATION SYSTEMS

The study of an accounting system for hospitality operations within the context of the firm's overall information system. The flow of data Irom source inputs through financial statement preparation, with emphasis on computer assisted processing and reporting techniques. Students use the University computer for a case project. Prerequisite: HFT 3403.
HFT 3434 CLUB OPERATIONS MANAGEMENT
Lecture. discussion. case studies and field trips specifically designed to expose the future club manager, golf professional and turi manager to club operations. Introduction to the uniform system of accounts ior clubs, annual club studies for operating results, control systems, taxation, budgeting and management reports
HFT 3453 OPERATIONS CONTROL FOR HOSPITALITY INDUSTRY MANAGEMENT
Study of the management tools available to control sales and expenses within hospitality operations.
Detalled analysis of the responsiblity centers using a cost managing approach. Case problems provide the students the opportunity to develop control systems for food and lodging organizations.

## HFT 3503 MARKETING OF HOSPITALITY SERVICES

Application of marketing principles to business operations within the hospitality industry, with particular emphasis on viewing marketing as a competitive strategy in domestic and international markets. Prerequisite MAR 3023
HFT 3514 ADVERTISING FOR THE HOSPITALITY INDUSTRY
Consideration of all aspects of the advertising element of the promotion mix to execute the corporation's or tourist destination's marketing strategy Prerequisite: HFT 3503.
HFT 3524 SALES MANAGEMENT FOR THE HOSPITALITY INDUSTRY
The course tocuses on organizing sales and servicing effort and executing marketing strategy by
developıng sales strategies, plans and tactıcs for hospitality corporations and tourist destınatıons. Special emphasis is placed on group markets and gaıning travel retailer support lor destınations, hotel corporations and cruiselines. The course may be lollowed by a sales management internship. Prerequisite: HFT 3503.

HFT 3603 LAW AS RELATED TO THE HOSPITALITY INDUSTRY
A basic course in hotel, motel and restaurant law. The student is introduced to the fundamental laws, rules and regulations applicable to the hospitality industry. The case sludy approach is used to develop an awareness and understanding of the legal problems contronting the executive in his policy and decision making role.
HFT 3700 FUNDAMENTALS OF TOURISM
An introduction to the broad fields of travel and tourism. Among the topics covered are cultural tourism, sociology of tourism, tourism components and supply, tourism development, the economic role of tourism demand, and the marketing of tourism.
HFT 3713 INTERNATIONAL TRAVEL AND TOURISM
An introduction to the complete international scope of travel and tourism. A briel analysis of regional Iramework and specific regions of the world, the interrelationship between human society and the physical environment. Tourism as a tactor in economic development and its cultural and sociological factors are explored. An analysis of the international organization of tourism and the facilitation procedures required lor its successful implementation are highlighted.
HFT 3722 RETAIL TRAVEL AGENCY MANAGEMENT
An introduction to the basic operations aspect of travel agency management. The application of fundamental principles and successful practices in developing a satisfied clientele.

## HFT 3727 TECHNICAL AGENCY OPERATIONS

Comprehensive, detailed course covering the technical procedures, practices and systems of day-to-day travel management, the counseling, sales and personal relationships with clients, hotels, lour agencies and transportation systems. Prerequisite: HFT 3722.
HFT 3733 CREATIVE TOUR PACKAGING
A thorough study of the functions of the wholesale tour operation. Includes tour operations and development, sales methods used in selling group business, costing and contracting of group business, and indepth study of the promotional aspects of tour packaging.
HFT 3753 CONVENTION AND TRADE SHOW MANAGEMENT
A course concentrating on organizing, arranging and operating conventions, trade shows, and concessions. Emphasis will be placed on the modes and methods of sales used in booking conventions and trade shows, as well as the division of administrative responsibility in their operation.
HFT 3763 PASSENGER TRAFFIC MANAGEMENT
A survey of land, water and air transportation from an integrated, intermodal frame covering organization, operations, financing, research, regulation, economics and certain social and political factors, as well as contributions made by each mode to the development of tourism.

## HFT 3793 SOCIOLOGY OF LEISURE

An introduction to the fundamental, psychological and sociological concepts and theories as they relate to the motivation behind travel and tourism. Emphasis will be placed on the biological basis of behavior and the dynamics of personality.
HFT 3900-3905 INDEPENDENT STUDIES
(VAR)
With permission from the Chairperson of the Division of Hotel and Restaurant Services, or Division of Travel Services, students may engage in independent research projects and other approved phases of independent study.
HFT 3941 INTERNSHIP IN HOSPITALITY MANAGEMENT
Experience in all the major phases of hospitality operations. Reports are required.
HFT 3945 ADVANCED INTERNSHIP IN HOSPITALITY MANAGEMENT
Structured management experience in a specialized career in the hospitality industry. Programs include: lood and beverage management, rooms division management, sales management, in-flight catering management, tast food service management and restaurant management. Structured management experience with an airline, a travel agency, a tour operator or a cruiseline. Report required.

HFT 4224 HUMAN RELATIONS IN THE HOSPITALITY FIELD
The problems faced by the supervisor and the executive in managing the human element in the hospitality field. Designed to give the student insight into the varied social and psychological factors present in any employee-employer relationship.
HFT 4234 UNION MANAGEMENT RELATIONS IN THE HOSPITALITY INDUSTRY
A comprehensive course covering labor legislation, union history and the day-to-day administration of the labor contract. Emphasis is placed on collective bargaining and the business relationships between union and management.
HFT 4276 RESORT MANAGEMENT
A course designed to locus on the unique problems of resort hotel management and the application of special techniques to meet these problems.
HFT 4293 RESTAURANT MANAGEMENT SEMINAR
By permission of instructor only. A senior course reviewing current problems and practices, developing policies and procedures and implementing same.
HFT 4444 COMPUTER SYSTEMS FOR HOSPITALITY INDUSTRY MANAGEMENT
A seminar on computer systems and their applications within the hospitality industry. Consideration is given to an understanding of the basic computer hardware and software concepts needed for a manager to communicate with data processing personnel. Prerequisite: HFT 3423.

## HFT 4464 INTERPRETATION OF HOSPITALITY INDUSTRY FINANCIAL STATEMENTS

In-depth study of hospitality industry linancial statements including consideration of the significant relatıonships between the various accounts lound on linancial reports. The statement of changes in financial position is studied, emphasizing lunds as a means of payment. Major emphasis is placed upon trend analysis, ratıo analysis and comparison analysis using hospitality industry annual studies. Prerequisites: HFT 3453, HFT 3423, HFT 3413.
HFT 4474 PROFIT PLANNING AND DECISION MAKING IN THE HOSPITALITY INDUSTRY
Study of the decision-making process involved in the development of profit plans through analysis of hospitality industry studies. The establishment of short and long term goals and the means to reach these goals through profit plans. Emphasis on pricing decisions, responsibility centers, variance analysis, costvolume prolit analysis, capital budgeting and tax considerations. Prerequisites: HFT 4464, HFT 4465.
HFT 4485 SEMINAR IN TAX PLANNING FOR THE HOSPITALITY INDUSTRY
Develops tax awareness and the ability to recognize the possible tax implications of business decisions. Tax considerations are studied lor existing, expanding and planned hospitality operations. Included are compensation plans, pension and profit sharing plans, depreciation methods, acquisitions, mergers, liquidations, organization structure, accounting methods and capital gains and losses. Prerequisite: Permission of the instructor
HFT 4494 SEMINAR IN HOSPITALITY INFORMATION SYSTEMS
A study of the information systems utilized in hospitality operations to provide better management information for analysis and decision-making. Industry participants afford students the opportunity to study and evaluate their information system. This forms the basis for their course project. Research, case problems, class analysis and discussion. Prerequisite: Permission of the instructor
HFT 4654 FINANCIAL AND LEGAL ASPECTS OF REAL ESTATE DEVELOPMENT
An introductory course designed to acquaint the student with the legal aspects of financing in the hospitality industry. The student is exposed to the sources and availability of hospitality financing. Financing from the viewpoint of a sole proprietorship, partnership and corporation is discussed. The course also covers the purchasing and leasing of hospitality properties, condominium and cooperative forms of ownership and Iranchising

## GRADUATE

HFT 5476 FEASIBILITY STUDIES FOR THE HOSPITALITY INDUSTRY
A survey of various theories and techniques available by which management may determine the financial leasibility of investments in the hospitality field. Prerequisites or Corequisites: HFT 3503, HFT 4474.
HFT 5495 SEMINAR IN HOSPITALITY INDUSTRY FINANCIAL MANAGEMENT SYSTEMS
Visits to various hospitality businesses for seminars with management team members. Lectures, demonstrations and discussion of each operation's methods and procedures, with empahsis on accounting and control systems. Prerequisite: Permission of the instructor.

## HFT 5595 (HRM 533) PROBLEMS IN MARKETING

Team-work analysis and recommended solution of an actual marketing problem which has been posed by a local operator. Prerequisite: HFT 3503

## HFT 5901, 5906, 5911 INDEPENDENT STUDIES

With permission from the Chairperson of the Division of Hotel and Restaurant Services, or Division of Travel Services, students may engage in independent research projects and other approved phases of independent study

## HFT 6226 MOTIVATION AND LEADERSHIP

Study of motivation, perception, learning, attitude formation, incentive theory, and job satisfaction, with emphasis on leadership and group task performance.
HFT 6246 ORGANIZATIONAL BEHAVIOR IN THE HOSPITALITY INDUSTRY
A survey of the concepts of organizational behavior and industrial psychology theory, from both the research and practical points of view. The course is designed to assist students in making sound decisions in the hospitality area by making them sensitive to the organizational parameters which influence their decisions.

## HFT 6256 INTERNATIONAL HOTEL OPERATIONS

A consideration of the various environments within which the international hospitality firm operates. Organizatıonal, linancial and marketing factors are of major concern. Emphasis is placed on those problems and constraints which are uniquely diflerent from problems of lirms engaged in domestic operations of a similar nature.
HFT 6286 THE ORGANIZATION AND ITS ENVIRONMENT
A study of the hospitality industry as it is affected by its environment and in turn attempts to influence the various elements in this environment

## HFT 6296 SEMINAR IN HOSPITALITY MANAGEMENT

Attention is locused on major problems facing management in today's economy. Special emphasis is placed on the lood service industry. Research of the current literature, class analysis and discussion.

## HFT 6297 SEMINAR IN MANAGEMENT METHODS

Class will be divided into small groups, each of which will meet regularly with the executive committee of an area hotel or restaurant. Each group witl be, in reality, the junior executive committee for the property. The groups will come together periodically for analysis and discussion of their experiences, and to relate their experiences to principles of modern management.

HFT 6446 HOSPITALITY INDUSTRY ORGANIZATIONAL INFORMATION SYSTEMS
Siudy of information systems in the hospitality industry. Consideration of the design and development of
an informatıon system based on user needs Emphasis on identification and specilication of user requirements and the selection of the appropriate design. Students work on a systems development project.

## HFT 6456 OPERATIONS CONTROL

Focus is directed to the information used in the decision process and the information llow associated with each decision process throughout hotel or restaurant enterprises.
HFT 6477 FINANCIAL MANAGEMENT FOR THE HOSPITALITY INDUSTRY
A study of the princıples of financial management and their application to the hospitality industry. Discussion and case studies are used to develop plans for meeting financ'al needs (short, intermediate and long term) from internal sources of capital markets. Attention is locused on capital budgeting, leasing, franchising. mergers. consolidations and current linancial issues in the hospitality industry.

## HFT 6486 INVESTMENT ANALYSIS FOR THE HOSPITALITY INDUSTRY

Advanced investment methods and opportunities with emphasis on securities of the hospitality industry, linancing technıques, syndicatıon, negotiations
HFT 6487 TAXATION FEDERAL AND STATE
A study of state and federal taxation concepts, including tax management for individuals, partnerships, and corporations engaged in the hospitality field
HFT 6586 RESEARCH AND STATISTICAL METHODS
A study of basic research methodology as applied to a variety of hospitality industry research projects. Techniques for data collection, and interpretation, and methods of reporting are considered.

## HFT 6596 MARKETING MANAGEMENT

Team-work analysis and recommended solution of an actual marketing problem which has been posed by a local operator
HFT 6697 HOSPITALITY LAW SEMINAR
New laws and their impact on the hospitality industry are examined. Students research and publish. "industry alert bulletıns," explaining the impact of new legislation on the hospitality industry. Prerequisite: HFT 3603 or equivalent.

## HFT 6916 HOSPITALITY INDUSTRY PROJECT

An individualized research project dealing with current problems in the hospitality industry. Topics and research methods must be approved by the graduate laculty before registration for the course.
HFT 6946 GRADUATE INTERNSHIP
Structured graduate management experience in a specialized career in the hospitality industry. Programs include: food and beverage management. rooms division management. sales management, in-flight catering management. fast food service management and restaurant management. Prerequisite: Permission of the instructor.

## 6297 SEMINAR IN MANAGEMENT METHODS

Class will be divided into small groups. each of which will meet regularly with the executive committee of an area hotel or restaurant. Each group will be, in reality, the junior executive committee for the property. The groups will come together periodically for analysis and discussion of their experiences, and to relate their experiences to principles of modern management.


## SCHOOL OF TECHNOLOGY

The School of Technology offers programs leading to the bachelor's degree in four fundamental technical fields: engineering technology, industrial systems, construction, and home economics. A master's degree is offered in environmental \& urban systems.

## PROGRAMS

The programs of the School are directed toward the practical use of scientific, engineering and technical principles to meet the objectives of industry, business, and the public. Programs range from those oriented toward careers in industrial management and supervision to those more directly associated with the sciences, mathematics and engineering or architecture: and are characterized by their emphasis on real applications, industrial operations and service. The School attempts to provide each student with the opportunity to develop marketable skills and to obtain an education which will prepare him or her for a rewarding career, and promote satisfying personal growth.

Underlying the programs of the School is a recognition of the growing impact of technology upon the quality of life and that the proper application of technology is critical to meeting current and emerging needs of man.

The academic programs of the School are provided by its four departments and are described below. Each department has several specified majors as well as a non-structured department major to meet the needs of individuals.

## BACHELOR DEGREES

The School awards the Bachelor of Science degree (B.S.) to students who complete the prescribed requirements in Engineering Technology (Electrical, Mechnical, Civil, Construction, Environmental and Urban Systems), Construction Managment, Architectural Technology, Home Economics, or Interior Design. A student enrolled in Industrial Systems may qualify for the Bachelor of Science degree or the Bachelor of Technology (B.T.) degree, depending on the nature of his or her individualized program of study.

## GENERAL BACHELOR'S DEGREE REQUIREMENTS

In order to obtain a bachelor's degree from the School of Technology, each student must satisfy the following minimum requirements:

1. Obtain a minimum of 180 quarter credits including transfer credits. Some students require more than the minimum program in order to obtain the competencies and objectives of their selected major.
2. Take at least 45 credits in the School of Technology.
3. Attain a minimum grade-point average of 2.0 on all work completed at F.I.U. and a minimum grade-point average of 2.0 on all School of Technology courses. A grade of "D" in any course taught by the School of Technology and listed as a major requirement may not be counted for graduation. Those receiving " $D$ " in such courses must repeat them or obtain a waiver from the advisor to substitute another course.
4 Satisfy the general education requirements for the bachelor's degree by taking those courses at the community college or by a combination of transfer, CLEP and course credits awarded at the University.
4. Satisty the particular requirements for his or her own major and all University requirements for graduation.
5. Complete an approved program of study which must be filed with the advisor by the time the student attains senior status ( 135 cr .) or at least two quarters prior to application for graduation.
6. Have proficiency in the use of language and mathematics appropriate to his or her program and career objectives.

## COOPERATIVE EDUCATION

A Cooperative Education (Co-Op) Program is conducted by the School of Technology in conjunction with the Department of Cooperative Education in the Division of Student Affairs. In
this program, a student spends alternate quarters in school full-time and fully employed in industry in a technical position directly related to his or her major. Academic credit (normally, 5 credits per quarter) which counts toward the degree is given for the work periods. The student receives full pay for his or her work in industry. Placement in co-op positions is arranged by the Co-op Program and includes both local and national industrial, business and governmental agencies. A Co-op student normally must agree to spend at least three work periods in industry and can normally complete the upper-division program within two calendar years. An applicant for the Co-op Program is evaluated by the School of Technology. An interested student should contact the Assistant Dean. Because of the requirement for three work periods, a student should enter the program during the first quarter of the junior year. Inquiries from lower-division students prior to transler to the University are particularly encouraged, since work may be arranged immediately upon enrollment.

## EXTERNAL DEGREE

The School participates in the External Degree Program of the University and the External Degree student may enroll in a department major. Because of the technical and laboratory requirements of most programs, the School will consider admission of a student to its External Degree Program only under these conditions:

1. Completion of two years of college, preferably with a technical associate degree.
2. The inability to attend the regular program.
3. Substantial work experience, with increasing responsibility, in the technical discipline of the proposed major.
4. A favorable evaluation of the probability of completing the program and the availability of the necessary resources (at this University and at an external site) for the program.

## ADMISSIONS AND PROGRAM PLANNING-BACHELOR'S DEGREE ADMISSION REQUIREMENTS

All bachelor's degree programs of the School are designed to integrate the community college graduate or junior-level transfer student into curricula which have established certain minimum competencies or skills as the requirements for the four-year degree. Consequently, requirements may be met in a variety of ways and through various sequences which are accommodated at the freshman and sophomore level by college parallel (A.A.) and technical (A.S.) programs of the community colleges and by four-year colleges. The School admits to full junior standing a student who meets one of the following requirements:

1. Associate of Arts Degree from an accredited community college, or ...
2. Associate of Science Degree from an accredited community college in the technical discipline of their proposed upper level major, or equivalent (the student with a nontechnical A.S. degree should consult the Dean's Office for assistance and may be admitted to certain programs,) or . .
3. Junior level ( 90 cr .) in good standing at a four-year college.

Others will be considered as exceptions on andividual basis. A student transferring with the Associate's Degree (A.A. or A.S.) is normally awarded 90 transfer credits toward the bachelor's degree. A transfer student from a four-year college may not receive more than 135 credits of transfer toward the bachelor's degree. The transferability of upper-level technical courses is determined by the advisor and is a part of the establishment of the student's program of study.

A student earning the Associate of Science Degree should attempt to obtain as many of the general education requirements as possible at the community college, preferably to completion and certification, by selection of electives. The college parallel student planning to major in Technology should select a pre-professional or pre-science major or should take math, science, and related electives in order to insure rapid progress after transier.

## PROGRAM OF STUDIES

The requirements for the various majors in Technology are described in terms of fundamental competencies which may be met through specified courses at the University or demonstrated in other ways. These alternative demonstrations include completion of
equivalent courses at other colleges, significant and varied work experience, and nontraditional learning experiences. Since each student may meet requirements in a unique way, based on his or her individual background and experience, each student is required to arrive at a program of study which establishes the specific requirements for his or her degree. The program of study must be approved by both the advisor and student and must be completed by the time the student reaches senior standing ( 135 hours) or at least two quarters prior to application for graduation. A student who does not comply with this requirement may delay his or her graduation.

## DEPARTMENT MAJORS

Each department offers a non-structured major in addition to its prescribed majors. The student selecting a department major develops an individualized program of study with an advisor which becomes the degree requirement after it has been approved by the School. A department major must satisfy all the graduation requirements of the School and University in a planned program. The School assumes no responsibility to apply courses to a department major which are taken prior to formal approval of program of study. The department major is provided to meet special needs; consequently, most students will be enrolled in the structured majors and the School of Technology does not approve a department major unless special needs exist which it can meet. All students in Industrial Systems enroll in the department major and receive individualized programs of study. In order to obtain the Bachelor of Science degree in a department major, the student must normally complete a program including substantial coursework in mathematics, science and related technology.

## ACADEMIC ADVISORS

A student who has been accepted to a degree program in the School of Technology must obtain and consult an advisor prior to the first class enrollment. The advisor assignment may be obtained by contacting the Office of the Dean or the Chairperson of the Department in which an academic major is desired. Continued contact (at least once per quarter) with the advisor is urged in order to review progress and register. Such contact is required until an approved program of study is completed. Special advising problems of the student who is undecided about a technology major may be referred to the Assistant Dean.

## CREDIT FOR EXPERIENCE

The School will consider awarding credit for experience of three basic types:
A. Compressed courses or training programs such as college seminars, short courses, company seminars, company schools, union apprenticeship schools, and military technical schools.
B. Regular courses taken from technical institutes or other instifutions where normal transfer credit is not applicable.
C. Work experience wherein the student gains applicable skills and knowledge.

Such credit may be awarded through examination or evaluation of work products. Evaluation of credit for life experience is, of necessity, a very rigorous process with awards given only for significant experiences that are fully documented and applicable to the student's program. Normally, evaluation is based on equivalency to courses required for graduation and credit is limited to a maximum of 25 quarter hours. A student must be fully accepted to a degree program and must have completed at least two quarters of upper-division work (25 hrs.) prior to evaluation of experience for credit. The student wishing consideration for such credit should discuss it with his or her advisor.

## ACADEMIC APPEAL

The School endeavors to provide an atmosphere in which the special needs of each student are served. In the event that a student has difficulty in a class or curriculum matter, this should be immediately brought to the attention of the instructor or advisor involved. If resolution is not possible in this way, the student should call the matter to the attention of the responsible department chairperson. If the problem still cannot be resolved, the student may appeal to the Dean of the School by stating the grievance in writing and requesting a review. The Dean may hear an appeal or refer the matter for consideration to an Appeals Committee appointed for that purpose.

## SPECIAL FEATURES

The School is actively engaged in a number of special programs as a service to the community and the University. Among these activities is support of the Technical/Vocational Education program in technology-related service coursework. The Construction Department hosts the International Association for Housing Science, an organization with membership from more than twenty nations, dedicated to improving housing technology and production, as well as studying the inter-disciplinary aspects of housing. The Engineering Technology Department has developed and supports environmental research activities. The School provides numerous special courses and training institutes in cooperation with other university organizations. Technology faculty are actively engaged with business, industry and government seeking the solutions to technical and operational problems. They are participating in a variety of applied research projects in such areas as energy, low-cost housing, transportation, solid waste disposal and water resources.

Authorized by the Board of Regents on December 9, 1976, the objectives of the Drinking Water Quality Research Center include research, education, and service. A specific mandate is determination of methods to produce quality drinking water through research and technology.

## MASTER OF SCIENCE DEGREE PROGRAM

The Florida Board of Regents approved a Master of Science degree in Environmental and Urban Systems which was implemented September 1977. Prospective graduate students should contact the coordinator of M.S. programs for further information.

This graduate program is a multidisciplinary one which utilizes the resources of both the School of Technology and the College of Arts and Sciences to provide students with advanced training in the analysis and solution of environmental and urban problems. Particular emphasis is placed on the treatment of the community as a complex series of interacting systems which influence health, safety, and quality of life. Service to the community through relevant research and a particular interest in the educational needs of working professionals are characteristics of the program.

## ADMISSION REQUIREMENTS

To be eligible for admission to the Master of Science program in the area of Environmental and Urban Systems, the applicant must:

1. Satisfactorily meet the general University requirements for admission to graduate programs.
2. Hold a baccalaureate degree from a regionally accredited college or university.
3. Achieve a " $B$ " average (or the equivalent) while registered as an upper-division student working for a baccalaureate degree or pass the Graduate Record Examination (GRE) Aptitude Test with a minimum score of 1000.
The applicant should have completed an undergraduate major in the areas of environmental or urban systems, engineering, the natural sciences, or a related field. Others may be considered for admission on an individual basis if they have completed necessary prerequisites and have work experience or other qualifications in the field. The student should have completed, as an undergraduate, courses in chemistry, physics, biological science, statistics and mathematics through calculus. Additional undergraduate courses may be required for some areas of specialization.

## DEGREE REQUIREMENTS

To be eligible for a Master's Degree in the area of Environmental and Urban Systems, a student must:

1. Satisfy all University requirements for a Master's Degree.
2. Meet any undergraduate deficiencies, the requirements of the core, and complete a specific program of study.
3. Complete a minimum of 53 quarter hours of graduate level courses. (Not more than 10 graduate credit quarter hours can be transferred from other accredited institutions.)
4. Achieve a " $B$ " average or better in all graduate work.
5. Complete an acceptable graduate thesis.

The M.S. in Environmental and Urban Systems consists of 53 quarter hours of graduate credit. All students will participate in the following core courses:

URP 6821 Urban Systems Analysis 5
EVS 6422 Environmental Assessment 5
EVS 4939 Seminar 1
EVS 6970 Thesis 10
EVS 4369 Air Quality Management 5
EVS 5242 Water Quality Management 5
URP 5425 Environmental and Human Factors 5

In addition to these common courses ( 36 hours), a student must select, with an advisor, an approved program of at least 17 quarter hours of graduate work in an area of specialization. Typical areas of specialization include water resources, environmental planning, industrial hygiene, pollution control, biological and physical sciences, transportation systems, and related topics.

# CONSTRUCTION DEPARTMENT 

Jack Clark, Professor and Chairperson Oktay Ural, Professor<br>Bhaskar Chaudhari, Associate Professor Iraj Majzub, Associate Professor

Hedvika Meszaros, Assistant Professor Julio Otazo, Assistant Professor Gerard Pierce, Assistant Professor

The Construction Department of the School is dedicated to a multi-disciplinary approach to the construction industry. By selecting from the fields of engineering, architecture, management, and interior design, its programs develop a system of skills applicable to the complex and interrelated problems of development, construction, and structures. As one of the major factors in our economy, the construction industry also plays a direct role in our quality of life and occupies a position of major concern in the curriculum of the University.

The Construction Department has four specific majors: Architectural Technology, Construction Engineering Techonology, Construction Management, and Interior Design.

## ARCHITECTURAL TECHNOLOGY

This program gives the student a multidisciplinary knowledge of the major areas related to the practice of Architecture. Emphasis is on the technical as well as the managerial aspects of the architectural project. These aspects include cost estimating and economic planning; the systematic approaches to building design, design development, preparation of working drawings and specifications; areas of field management and office administration; strength of materials; and theory and design of structures. Furthermore, the student is given the option of concentrating on one or more of the above areas by selecting related electives in consultation with his/her advisor. Articulation agreements have been made with the Department of Building Construction at U.F. and the School of Architecture at FMAU for transfer of graduates of this FIU program to master level studies at these institutions.

Campus Location: Tamiami Campus Only.
DEGREE: Bachelor of Science.
LOWER DIVISION PREPARATION: completion of an associate's degree program in architectural technology or pre-architecture; or academic credit or proven competency in the following areas: algebra and trigonometry (or technical mathematics), construction materials, architectural drawing, technical writing, building codes-plus completion of general education requirements.
Major Requirements: *
BCN 3611 Construction Cost Estimating ..... 5
BCN 3720 Construction Costs \& Scheduling ..... 5
BCN 3762 Codes \& Specifications ..... 5
ARC 3586 Building Systems ..... 5
BCN 3640 Econ. Planning for Construction ..... 5
BCN 3703 Management of Construction Projects ..... 5
BCN 3740 Legal Aspects of Construction ..... 3
BCN 3402C Mechanics of Materials ..... 5
ARC 3450 Architectural Innov. for Construction ..... 5
ARC 3484C Advanced Architectural Drawing and Design I ..... 5
BCN 3761 Specification Writing ..... 5
ARC 3786 Survey of Arch. History ..... 5
BCN 4260 Quality Control in Construction ..... 5
ARC 4590C Structural Design ..... 5
ARC 4485C Advanced Architectural Drawing and Design II ..... 5
ARC 4270C Professional Office Practice ..... 5
BCN 4561 Environmental Control in Buildings ..... 5
ARC $4335 C$ Site Development*or demonstrated competencyElectives: selected with an advisor to meet degree88requirements and program objectives (minimum requirement):

## CONSTRUCTION ENGINEERING TECHNOLOGY

This program offers a specialized treatment of the construction process. Emphasis is placed on technical courses in fundamentals of construction, management of personnel and equipment, inspections, mechanical and structural design, construction economy, construction materials, and construction methods.
Campus Location: Tamiami Campus Only.
DEGREE: Bachelor of Science.
LOWER DIVISION PREPARATION: academic credit or proven competency in the following areas: mathematics through calculus, physics, surveying, construction materials, engineering drawing, statics.

Remark: A student without this preparation may obtain it while completing the upper division program by taking additional electives.

| Major Requirements:* |  | Quarter Hours |
| :---: | :---: | :---: |
|  |  | 73 |
| ETC 3322C | Advanced Surveying | 5 |
| BCN 3240 | Construction Methods and Equipment | 3 |
| BCN 3611 | Construction Cost Estimating | 5 |
| BCN 3720 | Construction Costs and Scheduling | 5 |
| BCN 3762 | Codes and Specifications | 5 |
| ARC 3586 | Building Systems | 5 |
| BCN 3703 | Management of Construction Projects | 5 |
| ETG 3530 | Strength of Materials | 3 |
| ETG 3520L | Materials Testing | 2 |
| ETC 3410 | Determinate Structural Analysis | 3 |
| ETC 3220C | Soil Mechanics and Foundations | 5 |
| ETC 3210 L | Soil Mechanics Laboratory | 2 |
| ARC 4335 | Site Development |  |
| ARC 4590 C | Structural Design | 5 |


| ETI 4671 | Engineering Economy | 5 |
| :--- | :--- | :--- |
| COP 3110 | Introduction to Computers | 5 |
| BCN 4561 | Environmental Control in Buildings | 5 |

*or demonstrated competency
Electives: Selected with an advisor to meet degree requirements and program objectives (minimum required):

## CONSTRUCTION MANAGEMENT

This program is designed to develop individuals for management, supervisory or technical positions in the construction industry and related business, and for those who would engage in their own construction-related business activities. Emphasis is on technical and management essentials, such as cost estimating, project field management and operations, methods and equipment, codes and specifications, contract administration, job planning, scheduling, inspections, site development, construction materials, construction economics, cost control, labor relations, and safety.
Campus Location: Tamiami Campus Only.
DEGREE: Bachelor of Science.
LOWER DIVISION PREPARATION: academic credit or proven competency in the following areas: algebra and trigonometry, surveying, construction materials, drawing or drafting.

Remark: A student without this preparation may obtain it while completing the upper division program by taking additional electives.

> Quarter Hours

Major Requirements: *
BCN 3240 Construction Methods and Equipment 3
BCN 3611 Construction Cost Estimating 5
BCN 3720 Construction Costs and Scheduling 5
BCN 3762 Codes and Specifications 5
BCN 3703 Management of Construction Projects 5
BCN 3640 Economic Planning for Construction 5
BCN 3740 Legal Aspects of Construction 3
BCN 3402C Mechanics of Materials 5
ARC 4335C Site Development 5
BCN 4741 Construction Labor Law 5
BCN $4260 \quad$ Quality Control in Construction 5
BCN 4561 Environmental Control in Buildings 5
ARC 4590C Structural Design 5
ETI 3670 Industrial Financial Decisions 5
ETI 4671 Engineering Economy 5
BCN 3730 Construction Safety 5
REE 3040 introduction to Real Estate 5
BUL 4111 Business Law I 5

- or demonstrated competency

Electives: selected with an advisor to meet degree requirements and program objectives (minimum required):

## INTERIOR DESIGN

This is an interdisciplinary program integrating areas pertinent to the field of interior environments. It includes considerations in business procedures; commercial, residential and institutional design associated with this profession; and development in the ability to integrate design including basic design elements, space relationships, material and interior requirements.

Campus Location: Tamiami Campus Only.
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION: Completion of an Associate's Degree in Interior Design or related area.
UPPER DIVISION PROGRAM:
Major Requirements: With the approval of the advisor, students must complete a minimum of 90 credits selected from the following list:

Quarter Hours
90

| HHD 3151 | Housing: Shelter and the Consumer | 5 |
| :--- | :--- | :--- |
| IND 3500 | Interior Design | 5 |
| BCN 3257C | Exterior Design | 3 |
| IND 4221 | Institution \& Industrial Interiors | 5 |
| IND 4224 | Exhibit and Display Design | 5 |
| ART 3401C | Print Making | 5 |
| ART 3111C | Ceramics | 5 |
| ARH 4552 | Art of China and Japan | 5 |
| ARH 4470 | Contemporary Art | 5 |
| TPA 3010 | Theatre Design | 5 |
| COA 3410 | Consumer Resources Management | 5 |
| MAR 4503 | Intro. to Consumer Behavior | 5 |
| MAR 3023 | Principles to Marketing | 5 |
| HFT 3343 | Hotel and Restaurant Planning/Design | 5 |
| IND 4316 | Media/Methods for Presentations | 5 |
| IND 4930 | Seminar - Interior Design Research | 5 |
| ARH 3009 | Survey of Contemporary Art | 5 |
| SOP 4712 | Environmental Psychology | 5 |
| BCN 4561C | Environ. Control Systems in Building | 5 |
| FSS 4431 | Food Facility Layout \& Design | 5 |

## DEFINITION OF PREFIXES

ARC-Architecture; BCN-Building Construction; ETD-Engineering Tech.: Drafting; IND-Interior Design; HHD-Housing \& Home Design; LAA-Landscape Architecture.

## ARC 3210C ARCHITECTURAL CONCEPTS OF CONSTRUCTION

Introduction to principles of design and perception. Study of user's need relationship with environmental and human factors. Examination of architectural design ideas and their development. Prerequisite: ARC 3466, or equivalent.
ARC 3450 ARCHITECTURAL INNOVATIONS FOR CONSTRUCTION
Specialized study in an area of interest to the student, where architectural design is used with new methods of construction due to advancing technological developments. Drawings and field surveys. Prerequisite: Consent of instructor.
ARC 3466 MATERIALS AND METHODS OF CONSTRUCTION
A study of the types of construction and materials used in buildings. How materials are properiy installed and inspected, including the use of special equipment, in accordance to specifications, codes, standards, and agencies' recommendations.
ARC 3484C ADVANCED ARCHITECTURAL DRAWING AND DESIGNI
Methodology of planning and design of architectural projects, with special emphasis on working drawings and detail drawings. Prerequisite: ARC 3127C

Integrated study of basic design concepts and principles of design. Development of archifectural design products, presentation drawings, plans and quantity surveys. Prerequisite: ARC 3127C, or equivalent.
ARC 4270 C PROFESSIONAL OFFICE PRACTICE
Assignments in office administration, negotiation of contracts, fee structure, client and public relations. Business organization, procedure scheduling and task allocation within an architecfural office. Prerequisite: BCN 3740, or equivalent.
ARC 4335C SITE DEVELOPMENT
Fundamentals of site planning: physical, economic, social and governmental constraints affecting development; zoning; land use controis; subdivision layout; modular design; site characteristics (soil, geology, topography); drainage; access. Design and construction techniques. Prerequisite: Consent of instructor.
ARC 4336 BASIC UTILITIES AND HOUSING
The study of the importance of basic utilities (such as roads, sewer and water supply systems) in housing planning and construction. A relative cost analysis. Health problems and sociological effects of lack of basic utilities. Innovative concepts to incorporate basic utilities to all housing projects in developing countries. Prerequisite: Consent of instructor.
ARC 4354 C CONSTRUCTION AND DESIGN OF NATURAL RECREATION AREAS
The course includes design factors, construction requirements, and techniques in developing outdoor recreation lacilities. Soil structure, drainage, irrigation, grass choices, and landscaping materials are covered. Construction of unique natural recreation areas is stressed and related to maintenance costs in the establishment of good lacility management. Prerequisite: None..

## ARC 4485C ADVANCED ARCHITECTURAL DRAWING AND DESIGN II

New techniques in the preparation of working drawings, detail drawings, inclusion of change orders. Preparation of finish schedules, with correlation to specifications writing. Prerequisite: BCN 3706.

## ARC 4590C STRUCTURAL DESIGN

Elements of structural design in steel, reinforced concrete, and timber, with design specifications per AISC, ACI and NDS. Introduction to prestressed concrete design. Loadings and structural elements commonly encountered in construction will be used for analysis and design. Prerequisite: BCN 3402C, or equivalent.
ARC 5916 INNOVATIONS IN BUILDING TECHNOLOGY
Experimental approach to new materials and methods applicable to the field of construction. Prerequisite: consent of instructor.
BCN 3210 C CONSTRUCTION MATERIALS
Lecture/Lab-A study of the origins, production and uses of construction materials, such as concrete, steel, aluminum, wood, plastics, brick and stone. Includes testing lab, which consists of testing and evaluating properties of construction materials. Prerequisite: Physics.
BCN 3240 CONSTRUCTION METHODS AND EQUIPMENT
Methods, procedures, and equipment used in residential, commercial and heavy construction. Equipping the construction plant. Production value analysis. Work effectiveness sfudies. Prerequisite: Algebra.

## BCN 3254C BUILDING CONSTRUCTION DRAWING I

(4)

An introductory course in basic drafting and reading drawings. Use ol instruments; orthographic projection; lettering; sectional and auxiliary projections and applied engineering geometry are studied. Various technical symbols are studied to facilitate reading of structural, architectural and mechanical drawings. Prerequisite: consent of instructor.
BCN 3257C EXTERIOR DESIGN
Exploration and analysis of the relationship of exterior and interior environment. Emphasis on three dimensional design projects, using basic model making and presentations.
BCN 3280C CONSTRUCTION SURVEYING
Principles and practices of surveying as it applies to building construction. Prerequisite: Trigonometry or equivalent.
BCN 3402C MECHANICS OF MATERIALS Applications of the principles of mechanics to engineering problems of equilibrium, strength, and stifiness. Topics include equilibrium of forces, stress, strain, torsion, beams, and columns. Prerequisite: Trigonometry or Technical Math.

## BCN 3611 CONSTRUCTION COST ESTIMATING

Principles and theories of estimating, classilication of work, and quantity survey techniques; providing knowledge and skill as applied to various types of construction projects. Prerequisite: ARC 304, or equivalent.
BCN 3640 ECONOMIC PLANNING FOR CONSTRUCTION
Nature of construction costs, lunding sources and arrangements, capital requirements, bonding, insurance, risk and confingency evaluation, general office operations, and bidding procedures. Prerequisite: BCN 3703, or equivalent.

## BCN 3703 MANAGEMENT OF CONSTRUCTION PROJECTS

Organization and management theory elements of leadership and human supervision, organization, office operations, labor relations, safety, and work improvement, as they relate to project lield operations. Prerequisites: BCN 3720 and BCN 3762, or equivaients.

## BCN 3720 CONSTRUCTION COSTS AND SCHEDULING

The application of the Critical Path Method and Program Evaluation Review Technique to construction planning, scheduled vs. actual job expenditures. Cost forecasting. Development of unit prices from field data. Laboratory is included, which consists of computer applications. Prerequisite: BCN 3611, or equivalent.
BCN 3740 LEGAL ASPECTS OF CONSTRUCTIONrequirements. Prerequisite: BCN 3762

BCN 3761 SPECIFICATION WRITING
Study ol information acquisition on legal and technical aspects of construction, preparation of outline specifications, building description and purchasing specifications. Problems of format, reviewing, and updating. Prerequisite: BCN 3762

## BCN 3762 CODES AND SPECIFICATIONS

A study of codes required by local, county, and state levels. The writing and reading of specifications; bidding procedures; the relatıonships between contractors, engineers-architects, owners, subcontractors, and material suppliers. Prerequisite: ARC 3466, or equivalent.

## BCN 4221 ROAD CONSTRUCTION

A study of highway plannıng, pre-construction investigations such as surveys, soil test data and drainage, types of construction equipment and materials. Familiarization with standard methods required for various governmental agencies. Prerequisite: BCN 3210C.
BCN 4260 QUALITY CONTROL IN CONSTRUCTION
Quality control as governed by the job inspector, contractor superintendent, architect-engineer, building official, and governmental agencies and requirements. Prerequisite: BCN 3762, or equivalent.
BCN 4452 STRUCTURAL SYSTEMS
A general study of the methods of structural systems, such as beams, columns, rigid frames, arches, trusses, floors, enclosure systems, and various loundation configurations. The limitations of using various structural materials for the systems will be discussed. Prerequisite: BCN 3402C, or equivalent.

## BCN 4473 SYSTEMS APPROACH FOR HOUSING PLANNING

Discussions of basic concepts of systems analysis and systems approach to the field of housing plann-
ing. The advantage of systems approach. Case studies. Prerequisite: BCN 3706, or equivalent.

## BCN 4561 C ENVIRONMENTAL CONTROL IN BUILDINGS

A study of concepts and systems for providing optimum thermal, lighting, plumbing, and acoustical conditions, in both commercial and residential buildings. Designed tor majors in architecture, interior design. and construction management. Prerequisite: ARC 3466, or equivalent.
BCN 4707 HOUSING AND ENVIRONMENT
The impact of housing and construction on a community and environment. The necessity of total planning to protect the environment. Public participation in housing planning. Economics vs. ecology. Prerequisite: none.
BCN 4741 CONSTRUCTION LABOR LAW
A study of the common law and statutory laws affecting union-management relations in construction, with emphasis on current labor legislation, including wage and hour legislation, workmen's compensation, unemployment compensation, social security laws and special satety and health hazards
BCN 4905 DIRECTED INDEPENDENT STUDIES
Specialized intensive study in an area of special interest to the student. Prerequisite: consent of instructor.
BCN 4906 SPECIAL TOPICS
For a group of students who wish an intensive study of a topic not otherwise offered in the University. Prerequisite: consent of instructor

## BCN 5022 HOUSING FOR DEVELOPING COUNTRIES

Problems faced by developing countries in housing their population. Political, economic, social and technical considerations in decision process. Prerequisite: ARC 3586 or BCN 3706.

## ETD 3020 GRAPHIC COMMUNICATION

Princıples of bi-dımensional design, dratting techniques. Perspective and isometric drawing and introduction to architectural drawings. Prerequisite: consent of instructor.

## HHD 3151 HOUSING: SHELTER AND THE CONSUMER

Development of shelter and its effect on the family, community, towns, cities, etc. House planning and financing from the economic. social, scientific and aesthetic point of view. Prerequisite: none.
IND 3020 INTRODUCTION TO ARCHITECTURAL INTERIORS \& HOUSING
Application of the elements, principles and introduction to the basic facets of architeclural interiors and housing and its relationship to the environment. For non-interior design majors only.

## IND 3500 INTERIOR DESIGN

groups and organizations. tmphasis on various equipment and graphic techniques available, their applicatıon and use in simple and detailed communications. Prerequisite: none.

## IND 4221 INSTITUTION AND INDUSTRIAL INTERIORS

Analysis and synthesis of institutional lunctions, administrative controls, resources, constraints and policies in planning economic, behavioral and environmental parameters. Selections and design of selecled lurnishings and components. Prerequisite: IND 3500.

## IND 4224 EXHIBIT AND DISPLAY DESIGN

Articulation and analysis of exhibit and display planning and design, integrating purpose, perceptual and effectiveness into the design process: emphasis on the coordination of materials, graphic design, color and illuminatıon. Prerequisite: none

## LAA 3370C LANDSCAPE DESIGN I

Application of Basic Design principles to the design of landscape and garden. A general survey of design elements, restraints, plant materials and other garden materials will aid the student to develop projects in a laboratory environment. Prerequisite: CSN 345.

## LAA 3787 HISTORY OF LANDSCAPE

A survey of landscape history throughout the ages. From the gardens of Mesopotamia, Roman and Islamic periods, the Monastery and Castle gardens of middle ages and the Renaissance, to the influence of Oriental gardens and the modern era. Prerequisite: Consent of instructor.

## ENGINEERING TECHNOLOGY DEPARTMENT

James Story, Associate Professor and Chairperson<br>Robert W. Ellis, Jr., Professor<br>Daniel Jackson, Professor<br>LeRoy Thompson, Professor<br>Jose Villate, Associate Professor<br>Manuel Cereijo, Associate Professor

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The student who wishes to enter a position which emphasizes the practical application of engineering concepts in areas such as manufacturing, production, design, installation, operation, administration, service and sales will be served by the programs of the Engineering Technology Department. Its programs are designed to give each student technical and organizational knowledge which satisfies the needs of industry, business and government in many rewarding technical careers. The graduate of an Engineering Technology bachelor's degree program is a technical problem solver, with the skills and training necessary for independent action as a part of the engineering team.

The objectives of the programs include: proficiency in the use of the scientific method; the capability to analyze problems through calculus; the application of processes, equipment, procedures and methods to industrial problems; the knowledge of a field of specialization including the underlying sciences; individual judgment, initiative and resourcefulness; capability of establishing an effective rapport with workmen, scientists, managers and customers; and effective communication skills.

Three majors are offered in the Department of Engineering Technology: Electrical Engineering Technology, Mechanical Engineering Technology, and Civil Engineering Technology.

The Engineers' Council for Professional Development has accredited the Civil Engineering Technology and Electrical Engineering Technology majors.

## ELECTRICAL ENGINEERING TECHNOLOGY

This program offers specialization in the application of electronic concepts, including circuit analysis and design, communications, power, process control, digital systems and related topics.
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION: Completion of a community college associate's program in electronics technology, electrical technology, or pre-engineering; or the equivalent at a fouryear institution. An entering student with an Associate of Science degree in Technology should have completed algebra and trigonometry, physics, DC and AC circuits, transistor theory and circuits, semi-conductor devices and digital circuits prior to transfer. Pre-Engineering
(Associate of Arts) or other transfer students should have completed mathematics through calculus, physics (with calculus) and other sciences at the lower division. The student whose background does not include all of these skills (in either Technology or pre-Engineering) may be admitted with deficiencies which must be made up while enrolled at Florida International. UPPER DIVISION PROGRAM:
Quarter Hours
Core Courses (AA in Pre-Engineering) ..... 22
ETE 3034C Introduction to Circuit Analysis ..... 5
ETE 3101 Introduction to Electronics ..... 5
ETE 3030L Electronics Lab ..... 2
ETE 3142 Solid State Devices ..... 5
Advised Elective ..... 5
Core Courses (AS in Electronic Technology) ..... 20
MAC 3411 Calculus I ..... 5
MAC $3412 \quad$ Calculus II ..... 5
PHY 3040C Physics ..... 5
PHY 3041 C Physics ..... 5
Common Core Courses: ..... 70
ETE 3620C Logic Design ..... 5
COP 3110 Introduction to Computers I ..... 5
ETE 3121C Advanced Circuit Analysis ..... 5
ETE 3565C Introduction to Electrical Power ..... 5
ETE 3323C Practical Linear Systems Analysis ..... 5
ETE 3421C Modern Communication Technology ..... 5
ETE 4123C Electronic Circuit Analysis ..... 5
ETE 4161C Integrated Circuits Analysis \& Application ..... 5
MAN 3504 Industrial Operations ..... 5
ETI 4671 Engineering Economy ..... 5
Advised Elective ..... 5
Specialization ..... 15
Minimum Upper Division Required HoursSpecialization: of the following areas:
DIGITAL SYSTEMS
ETE 3661C Advanced Computer Systems ..... 5
ETE 4621C Advanced Logic Design ..... 5
ETE 4669 Microprocessors ..... 5
ELECTRICAL POWER
ETE 3526C Electric Machinery ..... 5
ETE 4565C Electrical Power Systems I ..... 5
ETE 4567C Electrical Power Systems II ..... 5
ELECTRONIC COMMUNICATIONS
ETE 3422 Transmission Systems for Communication ..... 5
ETE 4426C Advanced Communication Systems ..... 5
ETE 4170 C Passive and Active Filters ..... 5
PROCESS CONTROL
ETE 4324C Process Control Instrumentation ..... 5
ETE 4325C Advanced Control Systems ..... 5
ETE 4665C Digital Process Control Systems ..... 5
MECHANICAL
EVS 3215C Applied Hydraulics ..... 5
ETM 4205C Applied Thermodynamics ..... 5

Including both lower and upper division coursework, each student must complete a minimum of 34 quarter hours in communications, social science and humanities, and a minimum of 34 quarter hours in basic science and mathematics

## CIVIL ENGINEERING TECHNOLOGY

This program emphasizes a broad range of knowledge and skills necessary to participate in major projects, such as construction, design and analysis of highways, waterways, buildings, transportation facilities, public works and development. The program is professionally accredited by the Engineers' Council for Professional Development (ECPD).
Campus Location: Tamiami Campus Only.
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION: academic credit or proven competency in the following areas: mathematics through calculus, physics, surveying, construction materials, engineering drawing, statics.

Remark: A student without this preparation may obtain it while completing the upper division program, by taking additional electives.
UPPER DIVISION PROGRAM

| Major Requirements*: | Quarter Hours |  |
| :--- | :--- | :--- |
| ETC 3322C | Advanced Surveying | 5 |
| BCN 3762 | Codes and Specifications | 5 |
| ETG 3530 | Strength of Materials | 3 |
| ETG 3520L | Materials Testing | 2 |
| ETC 3412 | Determinate Structural Analysis | 3 |
| ETC 3220C | Soil Mechanics and Foundations | 5 |
| ETC 3210L | Soil Mechanics Laboratory | 2 |
| ETC 3420 | Indeterminate Structural Analysis | 5 |
| ETC 4541 | Traffic and Transportation Engineering Technology | 5 |
| ETC 4502 | Geometric Design of Highways | 5 |
| BCN 4431 | Steel Design | 5 |
| ETC 4450C | Reinforced Concrete Design | 5 |
| ETC 4429 | Computer Applications in Structural | 5 |
|  | Analysis and Design | 5 |
| COP 3110 | Introduction to Computers | 5 |
| EVS 3215C | Applied Hydraulics | 5 |
| EUS 3200 | Introduction to Environmental and Urban Systems | 5 |
| ETI 4671 | Engineering Economy | 5 |
| ETG 3510 | Dynamics | 5 |

*or demonstrated competency
Electives: selected with an advisor to meet objectives:

Including both lower and upper division course work, each student must complete a minimum of 34 quarter hours in communications, social science, and humanities, and a minimum of 34 quarter hours in basic science and mathematics.

Three specializations are available to the majors in Civil Engineering Technology, should they choose to not select the above general program. These specializations give the Civil Engineering Technology student the opportunity to pursue an area of specialization in Environmental Systerns, Planning Systems, or Transportation Systems.

These three specializations emphasize the interactions of people with their designed environment. The graduates of these specializations will have gained a learning experience to improve the quality of life through the insight obtained with a broad background of natural sciences, social sciences, and technical courses.

LOWER DIVISION PREPARATION：In addition to the required preparation for the general up－ per division program of Civil Engineering Technology，the student should have academic credit or proven competency in chemistry and biology for the specializations．A student without such preparation may correct any the deficiencies while pursuing the program by tak－ ing additional courses．

## ENVIRONMENTAL SYSTEMS

Instead of taking the 25 credits of ETC 4502，ETC 4429，EUS 3200，and the electives（10） in the general program of Civil Engineering Technology，the student will replace these credits with the following courses as the specialization requirements：

EVS 3360 Air Resources
EVS 3264C Water Resources
EVS 4233C Unit Operations I
EVS 4234C Unit Operations II
EVS 3463C Water Supply Systems
The following additional courses are recommended：
EVS 3219C Aquatic Systems
ENC 3353 Report and Technical Writing

## PLANNING SYSTEMS

Instead of taking the 25 credits of ETC 4502，ETC 4429，EUS 3200，and the electives（10） in the general program of Civil Engineering Technology；the student will replace these credits with the following courses as the specialization requirements：

| ETC 3570 | Introduction to Transportation Systems |
| :--- | :--- |
| URP 3000 | Urban Planning Concepts |
| EVS 3264C | Water Resources |
| URP 4021 | Urban Land Use Planning |
| ARC 4330C | Site Development |

The following additional courses are recommended：
EVS 3360 Air Resources
ENC 3353 Report and Technical Writing

## TRANSPORTATION SYSTEMS

Instead of taking the 25 credits of BCN 3762，ETC 4429，EUS 3200，and the（10）credits of electives in the general program of Civil Engineering Technology，the student will replace these credits with the following courses as specialization requirements；

ETC 3570 Introduction to Transportation Systems
URP 3000 Urban Planning Concepts
EVS 3264C Water Resources
ETC 4560 Transportation Planning
URP 4021 Urban Land Use Planning
The following additional courses are recommended：
EVS 3360 Air Resources
ENC 3353 Report and Technical Writing

## MECHANICAL ENGINEERING TECHNOLOGY

This program offers specialization in the application of energy，materials，mechanics，and design to industrial problems．
Campus Location：Tamiami Campus only．

## DEGREE：Bachelor of Science

LOWER DIVISION PREPARATION：academic credit or proven competency in the following areas：mathematics through calculus，physics，engineering drawing，statics，manufacturing processes．

Remarks: a student without this preparation may obtain it while completing the upper division program by selection of additional electives.

## UPPER DIVISION PROGRAM:

Quarter Hours
Major Requirements: ..... 90
ETG 3530 Strength of Materials ..... 3
ETG 3520L Materials Testing ..... 2
ETE 3034C Introduction to Circuit Analysis ..... 5
ETE 3101 Introduction to Electronics ..... 5
MAN 3504 Industrial Operations ..... 5
ETI 4671 Engineering Economy ..... 5
COP 3110 Introduction to Computers I ..... 5
ETG 3510 Dynamics ..... 5
ETM 3801 Basic Materials ..... 5
ETM 3510 Mechanical Design I ..... 5
ETM 4205C Applied Thermodynamics ..... 5
ETM 4225C Energy Systems ..... 5
ETM 4720C Air Conditioning Refrigeration Principles ..... 5
ETM 4221L Mechanical Laboratory ..... 2
ETM 4643L Air Conditioning and Refrigeration Laboratory ..... 2
ETM 4206L Applied Thermodynamics Lab ..... 2
ETM 4215C Instrumentation ..... 5
EVS 3215C Applied Hydraulics ..... 5*Electives selected with an advisor in an area of specialization:Minimum Upper Division Required Hours:90
"Typical specialization areas:1. Heating, Ventilating \& Air Conditioning Design Specialization(Professional Certificate)
ETM $4750 \quad$ Air Cond. Design 1 ..... 3
ETM $4752 \quad$ Air Cond. Design II ..... 3
BCN 3560 Mechanical Systems in Construction ..... 5
BCN 3521 Electrical Systems in Construction ..... 5
2. Electromechanical Specialization
ETE 3121C Advance Circuit Analysis ..... 5
ETE 3565C Introduction to Electrical Power ..... 5
ETE 3526C Electrical Machinery ..... 5
ETE 4565C Electrical Power Systems I ..... 5
ETE 4567C Electrical Power Systems II ..... 5
3. Power and Energy Specialization
ETM 3312 Fluid Power ..... 5
ETM 5235 Heat Transfer ..... 5
ETM 5260 Solar Energy Technology \& Application ..... 5
ETG 4930 Ocean Energy Systems ..... 5
4. Manufacturing Specialization
ETM 4511 Mechanical Design II ..... 5
ETI $3645 \quad$ Production Planning \& Control I ..... 5
ETI 3661 Plant Layout ..... 5
ETI 4603 Method Improvement ..... 5
ETI 4660 Material Handling ..... 5

Including both lower and upper division course work, each student must complete a minimum of 34 quarter hours in communications, social science, and humanities, and a minimum of 34 quarter hours in basic science and mathematics (general education requirements).

# Professional Certificate Program <br> HEATING, VENTILATING, AND <br> AIR CONDITIONING DESIGN 

The purpose of this professional certificate program is to produce a learning experience that will enhance the design capabilities of professionals in the field. Emphasis will include engineering science background as well as practical applications of systems design.

The certificate will be awarded to a student who successfully demonstrates competency in:

ETM 4205C Applied Thermodynamics 5
BCN 3560 Mechanical Systems in Construction 5
ETM 4640C Principles of Air Conditioning \& Refrigeration 5
ETM 4225C Energy Systems 5
ETM 4641 Air Conditioning Design I 3
ETM 4406L Mechanical Labl 2
ETM $4642 \quad$ Air Conditioning Design II 3
ETM 4643L Mechanical LabII 2
ETI 4671 Engineering Economy 5

## COURSE DESCRIPTIONS

## COMPUTER ENGINEERING TECHNOLOGY

## DEFINITION OF PREFIXES

ETE-Engineering Technology: Electrical; COP-Computer Programming.

## ETE 3620C LOGIC DESIGN

Karnaugh maps and Quine McCluskey reduction techniques, study of analytical and empirical tools necessary to design with digital IC's, combinational logic, and sequential circuits are considered (includes lab). Prerequisite: Boolean Algebra.
ETE 3650 C COMPUTER HARDWARE FUNDAMENTALS
Analysis of computer elements and systems composed of flip-flops registers, counters, adders, etc.; study of a basic arithmetic unit, core memory system, control units and organization of these units into a system (includes lab). Prerequisite: Boolean Algebra
ETE 3661C ADVANCED COMPUTER SYSTEMS
Study of hardware computer systems and components in a laboratory environment, arithmetic and memory system, complete minicomputer, digital communications system, digital modem input-output interface (includes lab). Prerequisite: ETE 3620.
ETE 4621C ADVANCED LOGIC DESIGN
Analysis, design and optimization of combinational systems, and interactive networks; study of digital systems such as multiplexers, D/A and A/D converters, digital multimeters, modems, arithmetic circuits, etc. Prerequisite: ETE 3620
ETE 4669 MICRO PROCESSORS
Lecture/Lab - including hardware, organization, interfacing, system components, application, design and selection. System development and usage through sottware. Prerequisites: COP 3110 and ETE 3661.

## COOPERATIVE EDUCATION

## DEFINITION OF PREFIX

ETG-Engineering Technology: General.
ETG 3949 COOPERATIVE EDUCATION TECHNOLOGY
Supervised full-time work quarter for technology cooperative education students. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required.
ETG 4949 COOPERATIVE EDUCATION TECHNOLOGY
Supervised full-time work quarter for technology cooperative education students. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required

## ELECTRICAL ENGINEERING TECHNOLOGY

## DEFINITION OF PREFIXES

ETE-Engineering Technology: Electrical; ETG—Engineering Technology: General; BCN-Building Construction.

A survey of electrical and lighting requirements for residential and commercial buildings. Emphasis on estimating circuits, power requirements, layout constraints, etc

## ETE 3030 SURVEY OF ELECTRONICS

The basic principles of AC and DC circuits, solid state devices, and lundamental electronic circuits. This course is intended for students outside of the Electrical Engineering Technology major with no prior knowledge of electronics (includes lab).
ETE 3030L ELECTRICAL AND ELECTRONIC LABORATORY
Introduction to laboratory equipment and techniques for pre-engineering students. Includes laboratory
experiements on $A C$ and DC circuits, electronic equipment and circuits, instrumentation such as meters, oscilloscopes, generators, etc. Corequisite: ETE 3101.
ETE 3034C INTRODUCTION TO CIRCUIT ANALYSIS
Introduction to AC and DC circuit analysis. Use of complex algebra and phasors. Loop and node analysis. Resonance circuits. Introduction to three phase circuits. Transient analysis of first and second order circuits using calculus. Prerequisites: MAC 3412 and Physics with electricity or equivalent.
ETE 3101 INTRODUCTION TO ELECTRONICS
Introduction to electronic circuit elements and analysis using calculus. Diode and transistor principles and circuits. Survey of pulse and digital circuits and various semiconductor devices. Prerequisite: ETE 3034 C or equivalent. Corequisite: ETE 3030.
ETE 3121C ADVANCED CIRCUIT ANALYSIS
This course provides the student with a basic knowledge of Laplace transforms for practical applications in networks and systems. Complex frequency poles and zeros concepts and applications, transformed networks, Fourier transtorm and signal spectra are also covered. Prerequisite: ETE 3034C or equivalent. Corequisites: MAC 3412 and ETE 3101

## ETE 3142 SOLID STATE DEVICES

Study of virtually all modern semiconductor devices with applications. MOSFET, photodetectors, thyristors, unijunction transistors, special diodes, etc. (includes lab). Prerequisite: ETE 3030 or equivalent

## ETE 3323C PRACTICAL LINEAR SYSTEMS

Basıc concepts and application of linear systems, feedback systems, stability analysis, Bode plots and root-locus techniques. Prerequisite: ETE 3121C

## ETE 3421C COMMUNICATION SYSTEMS

Definitions, basic concepts and application of analog and digital modulation techniques. Modulators for generating various signals and demodulators for information recovery are studied. Quantization.
Decoding. Effect of noise in communication systems. Prerequisite: ETE 3034 C or equivalent.

## ETE 3422 TRANSMISSION SYSTEM FOR COMMUNICATION

Terminology, delinitions and methods by which transmission objectives for message channels are established. Noise and its measurement. Crosstalk. Analog and digital transmission lines. Wideband data transmission (includes lab.) Prerequisite: ETE 3421C.

## ETE 3526C ELECTRIC MACHINERY

Analysis of rotating electric machinery with emphasis on industrial applications (includes lab). Prerequisite: ETE 3565C
ETE 3565C INTRODUCTION TO ELECTRICAL POWER
Structure of electrical power systems. Major components and modern energy systems. Magnetism and magnetic circuits. Mutual induction and self induction. Three-phase circuit analysis and per unit calculations. Translormers and transformer connections. Energy conversion. Power system loads and slatistical load-forecasting. Calculation of cost of electrical energy. Prerequisite: ETE 3034C or equivalent.

## ETE 4123C ELECTRONIC CIRCUIT ANALYSIS

Analysis and design of electronic circuits using bipolar transistors, FET's and MOSFET's. Application of frequency response techniques to the analysis and design of feedback amplifiers, tuned amplifiers, oscillators, modulators and demodulators, power amplifiers etc. Introduction to integrated circuits. Prerequisites: ETE 3121C and ETE 3142 or equivalents.
ETE 4161 C INTEGRATED CIRCUITS ANALYSIS AND APPLICATION
Application of state-of-the-art integrated circuits. Comparison of different IC's from the SSI, MSI, and LSI areas. Design and characteristics of linear and digital integrated circuits. Prerequisite: ETE 4123C.

## ETE 4170C PASSIVE AND ACTIVE FILTERS

Practical application ol passive and active filters 10 communication and process control systems. Laboratory applications. Prerequisite: ETE 3121C

## ETE 4324C PROCESS CONTROL INSTRUMENTATION

Servomechanisms analysis and design. Sensors, transducers, recorders, error detecting devices and other electronic and electromechanical components of control systems. Basic lab experiments on servomotors, tachometers, synchros, operational amplifiers as components and systems. Use of analog computer. Prerequisite: ETE 3323C
ETE 4325C ADVANCED CONTROL SYSTEMS
Design of control systems using Bode plots and root-locus techniques. Application of industrial controllers in temperature control, pressure control, and other applications. Grounding techniques in control syslems. Prerequisite: ETE 3323C
ETE 4425C ADVANCED COMMUNICATION SYSTEMS
Study of advanced communičation systems and lechniques. Emphasis is placed on the study of digital and FM systems. Phase-lock lechniques, noise analysis, threshold data, and transmission are among the subjects extensively covered (includes lab). Prerequisite: ETE 3421.

Power network concepts, AC \& DC transmission power transmissions, power transmission lines, power network representations, basic network solutions, symmetrical lault studies, symmetrical components. Prerequisite: ETE 3565C.
ETE 4567C ELECTRICAL POWER SYSTEMS II ..... (5)

Unsymmetrical faults and loads, the bus impedance matrix solutions lor lault studies. Conirol of voltage,
watts, vars, Load flow, economic dispatch and system stability Prerequisite. ETE 4565C

## ETE 4665C DIGITAL PROCESS CONTROL SYSTEMS

Study of digital process control systems. Time Irequency response to discrete systems. Digital controllers. Application to industrial processes. Laboratory work with digital components and systems (include lab.) Prerequisite: ETE 3323C.
ETG 4905 INDEPENDENT STUDY
Specialized intensive study in an area of special interest to the student. Consent of faculty instructor required.
ETG 4930 SPECIAL TOPICS
For a group of students who wish an intensive study of a topic not otherwise olfered in the University. Consent of laculty supervisor and Department Chairperson is required.

## CIVIL ENGINEERING TECHNOLOGY

## DEFINITION OF PREFIXES

ETC-Engineering Technology: Civil; ARC—Architecture; BCN-Building Construction; ETG-Engineering Technology: General.

## ARC 4590 C STRUCTURAL DESIGN

Elements of structural design in steel, reinforced concrete and timber, with design specifications per AISC, ACI and NDS. Introduction to prestressed concrete design. Loadings and structural elements commonly encountered in construction will be used for analysis and design. Prerequisite: BCN 3402C or ETG 3530 or equivalent.
BCN 3210C CONSTRUCTION MATERIALS
Lecture/Lab-A study of the origins, production and uses of construction materials, such as concrete, steel, aluminum, wood, plastics, brick and stone. Includes testing lab, which consists of testing and evaluating properties of construction materials. Prerequisite: Physics.
BCN 3402C MECHANICS OF MATERIALS
Applications of the principles of mechanics to engineering problems of equilibrium, strength, and stiffness. Topics include equilibrium of forces, stress, strain, torsion, beams and columns. Prerequisite: Trigonometry or Technical Math.
BCN 4431 STEEL DESIGN
The analysis and design of structural elements and connections for buildings, bridges and specialized structures utilizing structural sleel. Both elastic and plastic designs are considered. Prerequisite: ETC 3412.

ETC 3210 L SOIL MECHANICS LABORATORY
Laboratory experiments in identification, properties and behavior of soils. Prerequisite or corequisite: ETC 3220C.
ETC 3220 C SOIL MECHANICS AND FOUNDATIONS
Identification and properties of soils. Behavior of soils relating to design and construction of foundations for structures and pavements. Prerequisite: BCN 3402C or ETG 3530.
ETC 3321L SURVEYING
Leclure/Lab-Computations and field procedures associated with measuring of distances and angles, using tape, level and transit. Laboratory included with lield measurements. Prerequisite: Trigonometry.
ETC 3322C ADVANCED SURVEYING
Lecture/Lab-Computations and field procedures for earthworks and horizontal and vertical curves. Applications in establishing horizontal and vertical control in boundary determination, mapping, photogrammetry. Laboratory is included which consists of lield measurements, layouts and computations. Prerequisite: ETC 3321L or equivalent.
ETC 3323C LAND SURVEYING
The theory and practice of land surveying, including computations, procedures, platting, records, land descriptions, legal aspects, controls requirements, urban surveys, coastal boundary surveys, astronomical observations, U.S. Government and State requirements. Cadastral surveying and protessional registration. Prerequisite: ETC 3321L

## ETC 3412 DETERMINATE STRUCTURAL ANALYSIS

Analysis of statically determinate structural systems by analytical methods. Reactions; shear, axial and moment diagrams, truss analysis, inlluence lines; moving loads. Prerequisite: ETG 3530 or equivalent.
ETC 3420 INDETERMINATE STRUCTURAL ANALYSIS
Analysis of indeterminate structural systems. Development and use of theorems of moment area, conjugate beam, elastic weights, virtual work. Slope deflection and moment distribution methods. Moving loads and influence lines. Introduction to stiffness method and flexibility methods. Application of matrix methods. Prerequisite: ETC 3412.
ETC 4222C FOUNDATIONS DESIGN AND CONSTRUCTION
Use of soil mechanics and subsurface construction theory and practice for design and construction of
toundations lor buildings and other engineering facilities. Topics include shallow and deep foundations, excavation, bracing and retaining structures. Prerequisite: ETC 3220C.

## ETC 4429 COMPUTER APPLICATIONS IN STRUCTURAL ANALYSIS AND DESIGN

Discussion and application of various available computer programs and equipment for structural analysis and design. Application of the stiffness method and the flexibility method of structural analysis. Prerequisites: BCN 4431, ETC 4450C and COP 3110.
ETC 4450C REINFORCED CONCRETE DESIGN
The analysis and design of reinforced concrete beams, columns, slabs, retaining walls and footings. Both the working and ultimate strength design methods will be discussed, with primary emphasis corresponding to recent ACI Building Code. Prerequisite or Corequisite: ETC 3420.

## ETC 4460 TIMBER DESIGN

The analysis and design of modern wood structures. Effect ol plant origin and physical structure of wood on its mechanical strength; lasteners and their significance in design. Prerequisite: BCN 3402C or ETG 3530 or equivalent.
ETC 4502 GEOMETRIC DESIGN OF HIGHWAYS
Route surveys by ground and aerial methods-reconnaisance, preliminary and location surveys; geometric properties of highway surveys; spiral theory; design controls for both vertical and horizontal alignments. Applications ol various available computer programs and equipment to the design of highways. ETC 3322C and COP 3110 or equivalent.

## ETC 4541 TRAFFIC AND TRANSPORTATION ENGINEERING TECHNOLOGY

Characteristics of trattic, roadway, vehicular and human factors. Design, development regulations in modern transportation systems. Stream of flow, capacity, parking, accident analysis and intersection characteristics. Prerequisites: COP 3110 and Calculus.
ETC 5422C ADVANCED STRUCTURAL DESIGN
The design of structural systems to formalize the student's knowledge of the behavior of individual components into a final integrated structure. Continuous span and simple span highway bridges, culverts, retaining walls, rigid frames, multistoried buildings and similar problems of interest to the student. Prerequisites: BCN 4431 and ETC 4450C.
ETC 5470 PRESTRESSED CONCRETE DESIGN
The behavior of steel and concrete under sustained load. Analysis and design of pre-tensioned and posttensioned reinforced concrete members, and designing these members into the integral structure. Prerequisite: ETC 4450C

## ETC 5507C ADVANCED GEOMETRIC DESIGN OF HIGHWAYS

Parameters governing the geometric design of highways; curve super-elevation; widening on highway curves; elements of intersection design; design of interchanges; use of AASHO design guidelines. Design project required. Prerequisite: ETC 4502.
ETC 5514 PAVEMENT DESIGN
Analysis and design of sub-base, base and pavement of a roadway. Discussions of flexible pavement and rigid pavement as structural units. Boussinesq's approach, Westergaard's theory. Beams on Elastic Foundations. Prerequisites: ETC 3220C and ETC 4450C.

## ETG 3502 STATICS

Study of lorces acting on bodies, including coplanar and non-coplanar forces, concurrent and noncurrent forces, friction forces and hydrostatic forces. Prerequisites: Physics, Calculus.
ETG 3520 L MATERIALS TESTING LAB
A laboratory study of principle materials with particular attention to their mechanical properties and significance for engineering uses. Prerequisite or corequisite: BCN 3402C or ETC 3530 or equivalent.

## ETG 3530 STRENGTH OF MATERIALS

Axial, torsional, shear, bending and combined stress and strain analysis; mechanical properties and applications lor static, dynamic, latigue and creep conditions. Prerequisite: ETG 3502 or equivalent.

## ENVIRONMENTAL AND URBAN SYSTEMS

## DEFINITION OF PREFIXES

EVS-Environmental Science; ETC-Engineering Technology: Civil; URP—Urban and Regional Planning; OCB-Oceanography-Biological.

Role of transportation in urban and regional development; elements of the transportation system; characteristics and design considerations of various modes; the travel way; facilities; control and guidance; selected design standards and technology; operational characteristics; planning techniques.
ETC 4560 TRANSPORTATION PLANNING
Principles of transportation planning; origin-destination studies; methodology used in generating transportation plans; techniques for predicting and evaluating the consequences of various alterntives; transportation planning for Dade County. Prerequisite: ETC 3570.
ETC 5571 ADVANCED TRANSPORTATION SYSTEMS
Examinatıon of innovative transportation systems technology; technical leasibility; system attributes; energy requirements; marketability of proposed systems; probable effect on modal choice behavior; evaluation ol possible applicalions in the Greater Miami area. Prerequisite: ETC 4560.
ETC 5572 INTRODUCTION TO URBAN SYSTEMS MODELING
Transportation modeling; systems view of the urban area; planning applications of modeling. Prerequisite: COP 3210, or consent of the instructor.

## EVS 3215C APPLIED HYDRAULICS

A course to provide background in basic hydraulic technology. The fundamental theorems are studies and then applied to the collection and distribution of water and the collection and treatment of wastewaters
EVS 3219C AQUATIC SYSTEMS
Biological, chemical and physical aspects of freshwater lentic and lotic ecosystems. Emphasis is on the freshwater systems of South Florida.

## EVS 3264C WATER RESOURCES

Study of the hydrologic cycle; ground and surlace water occurrence and quality; sanitary protection of surface and groundwater; sources of pollution; water quality management; multipurpose uses of water and reuse; determination of municipal, industrial, and agricultural water requirements.
EVS 3268C MARINE TECHNOLOGY
Technological aspects of ocean systems. Prerequisite: EVS 3219 or consent of instructor.

## EVS 3360 AIR RESOURCES

An introductory course on characteristics of the earth's atmosphere and aspects of air pollution. Classification and sources of air pollutants. Effects of air pollutants on health, vegetation and property. Control measures, legislation and projections.

## EVS 3420C ENVIRONMENTAL INSTRUMENTATION

A lab/field course for the critical evaluation of basic instrumental methods of environmental sampling and analysis. Includes field sampling (sample preparation and storage), laboratory skills, and legal considerations.
EVS 3428 ENVIRONMENTAL MANAGEMENT
The wise use of land and water for parks and recreational areas. Environmental design and need for green spaces. Ecologically safe methods for the control of vegetation and insects.

## EVS 3601C ENVIRONMENTAL HEALTH

The effects of environmental pollutants on man's health and the quality of life.

## EVS 4233C UNIT OPERATIONS I

Principles of wastewater treatment. Physical and biological unit treatment operations, including sludge digestion. Significance of laboratory tests. Laboratory work and occasional field trips required. Prerequisite: EVS 3215
EVS 4234C UNIT OPERATIONS II
A continuation of EVS 4233, incorporating chemical unit operations including effluent disinfection.
Laboratory work and occasional field trips required. Prerequisite: EVS 4233C.

## EVS 4463C WATER SUPPLY SYSTEMS

Development of water supplies. Treatment of water including disinfection techniques. Distribution systems. Laboratory work. Prerequisites: EVS 3264C and EVS 4233C, or consent of instructor.
ETC 4560 TRANSPORTATION PLANNING
Principles of transportaion planning; origin-destination studies; methodology used in generating transportation plans, techniques for predicitng and evaluating the consequences of various alternatives; transportation planning for Dade County. Prerequisite: ETC 3570.

## EVS 4905 INDEPENDENT STUDY

Individual research studies available to academically qualified students. Consent of instructor required.

## EVS 4930 SPECIAL TOPICS

Study of specific aspects (ol environmental technology or urban systems) not available through formal course study. Open to academically qualified students. Consent of instructor required.
EVS 5218 ADVANCED HYDRAULICS
An advanced course in hydraulics. Topics include open channel flows, spillways, stilling basins, energydissipating devices, rheology, and principles of fluidics. Prerequisite: EVS 3215, or consent of instructor.

## EVS 5235C WASTEWATER COLLECTION AND TREATMENT

Wastewater collection systems. Integration of unit operations into the planning and design of treatment plants, including sludge handling and disposal. Prerequisites: EVS 4233 and EVS 4234, or consent of instructor.

## EVS 5242 WATER QUALITY MANAGEMENT

Predicting and evaluating the effects of human activities on streams, lakes, estuaries and groundwaters; and the relation of human activities to water quality and protection of water resources. Prerequisite: EVS 4234, or consent of instructor.

EVS 5261 BIOLOGICAL MONITORING OF FRESHWATER ECOSYSTEMS
The use of aquatic insects and other invertebrates to monitor changes in the aquatic environment. The ecological aspects of aquatic insects in relation to pollution stress are assessed. Prerequisite: EVS 3219, or consent of instructor.

## EVS 5267 WATER QUALITY INDICATORS

Ecological studies of micro and macro-organisms which are indicators of water quality. Emphasis on bioassays and early warning systems. Prerequisite: EVS 5266, or consent of instructor.
systems. Critical comparison and examination of methods and instrumentation. Source testing, instrumental sensitivity, applicability and remole sensing systems. Prerequisite: EVS 3360 or EVR 4231.
EVS 5362 AIR POLLUTION CONTROL
Air pollution control - devices, principles, efficiencies, costs. Gas scrubbers, electrostatic percipitators, thermal deposition, filters, condensors, alter-burners. By-product recovery. Stoichiometry of combustion mixtures and basic industrial plant designs are discussed. Prerequisite: EVS 3360 or EVR 4231.
EVS 5369 AIR QUALITY MANAGEMENT
A course in air resources designed to review the administrative, legislative and regulatory process in air pollution control. Agencies, surveillance networks, data, criteria for establishing standards, regulations and educational programs. Prerequisite: EVS 3360, or EVR 4231.
EVS 5421 C INDUSTRIAL AND ENVIRONMENTAL TOXICOLOGY
Introduction to toxicological studies in the urban environment. Prerequisite: EVS 3601C, or consent of instructor
EVS 5425C VECTOR AND PEST CONTROL
Effects and management of public health vectors and communicable diseases. Prerequisite: EVS 3601C, or consent of instructor
EVS 5426C ADVANCED ENVIRONMENTAL INSTRUMENTATION
A laboratory-oriented course, dealing with the most sensitive and sophisticated instruments used in environmental analysis. Covers theory of specialized laboratory procedures and instruments, optics, electronics, design, cost, versatility, and operational instrument parameter considerations. Assigned projects. Prerequisite: EVS 3420C, or consent of instructor.
EVS 5682 SOLID WASTE MANAGEMENT
In-depth study of the solid waste problem. Topics include municipal, industrial, and agricultural generation of wastes; municipal collection systems; methods of disposal, hazardous wastes, and energetic considerations in the recovery and recycle of wastes.

## EVS 5741 NOISE

Fundamentals of sound and noise. Health hazards and other effects. Case studies - measurement and noise control in transportation, environment, construction and industry. Abatement laws and ordinances in Dade County and worldwide.
EVS 5905 INDEPENDENT STUDY
Individual research studies available to academically quaified students on graduate status.
EVS 5930 SPECIAL TOPICS
Specific aspects of environmental technology and urban systems not available through formal course study. Open to academically qualified students only.
EVS 6050C ADVANCED PLANNING IMPLEMENTATION
Critical examination of traditional implementation tools. New growth management strategies - moratoria, timing, capital improvement programs, PPBS. Case studies from U.S.A. Innovative methods and governmental policies. Prerequisites: URP 4021 and URP 4011.
EVS 6051C ADVANCED UNIT OPERATIONS I
Theory and design of physical, chemical, and biological unit operations as applied to the advanced treatment of water and wastewater. Prerequisite: EVS 5242.
EVS 6052C ADVANCED UNIT OPERATIONS II
A continuation of EVS 6051C including the reuse of treated wastewaters and of sludges. Prerequisite: EVS 6051C.
EVS 6053C ADVANCED TREATMENT SYSTEMS
Integration ol unit operations into advanced treatment systems for waters and wastewaters. Prerequisite: EVS 6052C.
EVS 6054 AQUATIC RECLAMATION
Evaluation of techniques to improve the water quality of lakes, canals and rivers. Cultural eutrophication corrective measures are emphasized. Prerequisites: EVS 3219, EVS 5267, or consent of instructor.

## EVS 6269C INDUSTRIAL WASTEWATER TREATMENT

Characteristics and composition of industrial wastewaters. Sampling techniques and analyses. Water conservation and reuse. Joint industrial-municipal collection and treatment of wastewaters. Prerequisite: EVS 6053C.
EVS 6422 ENVIRONMENTAL ASSESSMENT
An examination of alternative techniques useful for the analysis and evaluation of environmental impacts ol man's activities. Prerequisite: URP 6821
EVS 6424 AIR-LAND INTERFACE STUDIES
An environmental evaluation of the relationship between the atmosphere and the continental surfaces in a non-urban or natural system. Prerequisite: EVR 5236, or consent of instructor.
EVS 6603 ADVANCED INDUSTRIAL AND ENVIRONMENTAL TOXICOLOGY
Laboratory investigations with toxic substances, especially those related to man-made pollution. Prerequisites: EVS 3601, and EVS 3421.
EVS 6939 SEMINAR
(1-3)
The course consists of oral presentations made by students, guests and faculty members on current topics and research activities in environmental and urban systems
EVS 6970 THESIS
Commercial products, already developed, which may be obtained trom aquatic systems. Prerequisite: EVS 5268. or consent ol instructor.

Mechanisms of materials transfer from water bodies to the atmosphere and from the atmosphere to the water will be discussed. Prerequisite: EVS 3360

## URP 3000 URBAN PLANNING CONCEPTS

Planning fundamentals; objectives and scope of urban planning; theories of land use patterns; population studies; cohort survival technique; employment studies; economic studies; estimating demand for various land usage; physical, social, political and managerial conditions; comprehensive plan and its elements, aesthetics and design concepts for communities; implementation tactics.

## URP 3030 ANALYSIS OF TECHNOLOGICAL SYSTEMS

Fundamental concepts of systems analysis; types of systems; input-output relationship; positive and negative feedback control; generation of system alternatives; tradeoff and sensitivity analysis; elementary optimization techniques.

## URP 4011 PLANNING IMPLEMENTATION

Planning law and administration; practice in formulation of zoning ordinance; land subdivision, urban renewal; trends and innovations in control of growth - case studies in USA; critical path method (CPM); planning, programming, budgeting systems (PPBS) and capital improvement programs. Prerequisite: URP 3000.

## URP 4021 URBAN LAND USE PLANNING

Elements of the general land use plan, location and space requirements; the use of models in planning; development of the land use plan; policy plan; implementation. Prerequisite URP 3000.

## URP 5425 ENVIRONMENTAL PLANNING

Ecological principles necessary to preserve a quality environment are presented by means of planning policies, processes and environmental indicators. Emphasis will be placed on the impact of growth on environmental quality. Prerequisites: EVS 3360, URP 3000 and EVS 3264

## URP 6423 ENVIRONMENTAL MODELING

Evaluation of regional resources, environmental stresses, and considerations in regional systems: systems analysis in environmental management and its relation to decision making; modeling of air and water systems. Prerequisites: COP 3210, ETC 5572, or consent of instructor.
URP 6821 URBAN SYSTEMS ANALYSIS
The urban areas as a complex system; modeling the urban growth processes; statistical decision making games; modeling and simulation; cosi effectiveness; application of the theory; a system-wide view of the Miami area. Prerequisite: COP 3210, URP 4030, or consent of the instructor.

## URP 5400 URBAN AND REGIONAL ANALYSIS

Theories of urban and regional growth; collective utility analysis; input-output models in planning; application of linear programming to regional social accounting; economic base analysis. Prerequisite: MAS 311, or consent of the instructor.

## EUS 3200 INTRODUCTION TO ENVIRONMENTAL AND URBAN SYSTEMS

This course is designed for non-majors as an integrated approach to the role of technological man in the biosphere. Emphasis is on methods for the environmental quality improvement of land, air, water, transportation, and planning systems.

## MECHANICAL ENGINEERING TECHNOLOGY

## DEFINITION OF PREFIXES

BCN-Building Construction; COP-Computer Programming; ETG-Engineering Technology: General; ETI-Engineering Technology: Industrial; ETE-Engineering Technology: Electrical; ETM-Engineering Technology: Mechanical; MAC-Mathematics: Calculus.

## BCN 3560 MECHANICAL SYSTEMS IN CONSTRUCTION

A survey of plumbing, heating, air conditioning and ventilation systems for building (includes lab).
Study of the motion of particles and members applied to technical problems. Impact momentum and mechanical energy. Prerequisites: MAC 3412, and ETG 3502, or equivalent.
ETI 3411C MANUFACTURING PROCESSES I
An introduction into the processes used to convert raw materials into finished products. Includes information on casting, forging, machining, and forming (includes lab).

## ETM 3312 FLUID POWER

A study of the development, transmission and utilization of power through fluid power curcuits and controls (includes lab). Prerequisite: EVS 3215C, or equivalent.

## ETM 3510 MECHANICAL DESIGN I

Design analysis of elementary machine members including shafting, springs, screws, belts, clutches,
brakes, chains, welds, and rivets. Prerequisites: ETG 3510, ETG 3530, or equivalent.
ETM 3801 BASIC MATERIALS
A study of ferrous and nonferrous metals and alloys. Includes atomic structure, bonding, and arrangement of atoms; phase diagrams; reactions within solid materials, and the interrelation of these to show how structure determines the properties of a material.
ETM 4205C APPLIED THERMODYNAMICS
Fundamental concepts of basic thermodynamics, including thermodynamic properties and processes, first and second laws of thermodynamics and application of the principles to energy conversion systems, introduction to heat transier (includes lab). Prerequisite MAC 3412.

ETM 4206L APPLIED THERMODYNAMICS LABORATORY
Conduction, convection and radiation experiments, regeneration, stirling and air standard power cycles, combustion processes. Prerequisites: ETM 4205C, ETM 4221, ETM 4643C.

## ETM 4215C INSTRUMENTATION

Presentation of experimental methodology; basic instrumentation used in mechanical engineering and its calibration and use; accuracy, error and uncertainty in experimental measurements; engineering report writing (includes lab). Prerequisites: ETG 3530C, ETM 4205C, ETE 3034C, and senior standing.
ETM 4221L MECHANICAL LAB I
The most modern available testing equipment is used for experiments in hydraulics, fluid power equipment, internal combustion engines including the Stirling Cycle Hot Air Engine, gas turbines, steam turbines, boilers, centrifugal and axial fans, rotary and sliding van compressors, convection and radiation and solar energy. Prerequisite: ETM 4205C.
ETM 4225C ENERGY SYSTEMS
Review of theory and engineering aspects of conventional energy conversion systems, fuels and combustion, fossil fuels, and nuclear power plants. Mechanical engineering aspects of direct energy conversion (includes lab). Prerequisite ETM 4205C, or equivalent.
ETM 4511 MECHANICAL DESIGN II
Continuation of the design analysis of elementary machine members, including lubrication, bearings, and gearing. Introduction to advanced analysis techniques. Prerequisite: ETM 3510.
ETM 4720 AIR CONDITIONING REFRIGERATION PRINCIPLES
The theory, operation and control of heat pump cooling and heating, chemical absorption cooling and steam jet refrigeration systems. (Includes laboratory). Prerequisite: ETM 4205C.
ETM 4750 AIR CONDITIONING DESIGN I
Psychrometry comfort; mechanical refrigeration; heat pumps; load calculators; cooling coil performance; heating and humidification; air distribution duct design fans. Prerequisite ETM 4205C.
ETM 4752 AIR CONDITIONING DESIGN II
Air conditioning systems; piping, pumps, hydronics; chillers, boilers, piping and combinations; cooling towers; heat recovery systems; automatic control; instruments. Prerequisite: ETM 4750.
ETM 4643C AIR CONDITIONING AND REFRIGERATION LAB
Experiments in air conditioning, refrigeration, reverse cycle and strip heating, water cooling towers, automotive air conditioning, absorption refrigeration, and solar energy applications to heating and cooling. Prerequisite: ETM 4205C.
ETM 5260 SOLAR ENERGY TECHNOLOGY AND APPLICATIONS
Basic principles of solar radiation, transmission and absorption. Flat plate, passive and focusing collectors. Thermal storage applications to water heaters, air conditioning, power generation, swimming pool heating and process heat supply, and their economics. Prerequisites: ETM 4225C, ETM 4206L.
ETM 5235 HEAT TRANSFER
Fundamental concepts of conduction, convection and radiation heat transfer, including practical numerical analysis in addition to conventional analytical and empirical methods. Prerequisites: MAC 3412, COP 3110 and ETM 4205C, or equivalent.

# HOME ECONOMICS DEPARTMENT 

Betty Morrow, Assistant Professor<br>and Acting Chairperson<br>Florence Ogle, Assistant Professor

Adele Smith, Assistant Professor<br>Penelope Storm, Assistant Professor<br>Greta Howard, Instructor

The Department offers majors in several areas of specialty intended for the student who desires a career in home economics or a related field, but who does not plan to teach in a secondary school. The program offers six areas of specialization: Management and Consumer Affairs; Family and Child Development; Fashion Merchandising; Food and Nutrition; General Home Economics; and Clothing and Textiles. All majors are provided the opportunity to gain vocational skills through career traineeships, which can provide experience in working in special environments or with a select group such as the handicapped, the elderly, or those with low incomes. Many of the specializations involve course work in other programs or departments, such as marketing, management, dietetics and nutrition, sociology, psychology, communications.
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required: general education requirements for Associate of Arts degree
Recommended: courses in home economics, fashion, chemistry, economics, art, psychology, sociology, and anthropology.

## CLOTHING AND TEXTILES

Students interested in working in fabric retailing as pattern company representatives or clothing construction instructors for business, or in specialized areas such as custom dressmaking and tailoring, would choose this area of specialization. Students holding an A.S. or A.A. degree in Fashion Design may desire to major in this program.

Quarter Hours
Core Courses:
27
CHD 3220
Child Development: Infancy and Early Childhood
5
COA 3410
Consumer Resources
5
FAD 4230
Family Life Cycle 3
FOS 3004 Food and Consumer 4
HME 4210 Personal and Career Management 5
HHD 4420 Home Furnishings and Equipment 5
Specialization: Survey of General Chemistry and Lab
CHM 3030
CHM 3200 Survey of Organic Chemistry and Lab 7
CTE $3310 \quad$ Basic Clothing Construction 5
CTE 3401 Consumer Textiles 5
CTE 3602 Fashion and Culture 5
CTE 4340 Advanced Clothing Construction 5
CTE 4352 Tailoring 5
CTE 4741 Pattern Alterations 5
CTE 4761 Fashion Production and Distribution 5

| Advised Elective |  |
| :--- | ---: |
| Career Traineeship  <br> CTE 4880 Fashion Field Experience | $\mathbf{5}$ |

## MANAGEMENT AND CONSUMER AFFAIRS

This specialization is planned to lead to an academic certificate from the Institute of Consumer Affairs as well as a B.S. from the School of Technology. It is intended to lead to careers as consumer consultants, counselors or representatives in business or governmental agencies. A separate track is available for students desiring to work with special groups such as the elderly or the handicapped.

## Quarter Hours

Core Courses:
CHD 3220 Child Development: Infancy and Early Childhood 5
CTE 3312 Clothing and the Consumer 5
CTE 3401 Consumer Textiles 5
FAD 4230 Family Life Cycle 3
FOS 3004 Food and the Consumer 4
HHD 3151 Housing: Shelter and the Consumer 5
HHD 4420 Home Furnishings and Equipment 5
Specialization: Personal and Family Economics
COA 3130
COA 3410 Consumer Resources 5
COA 4440 Consumer Counseling 5
COA 4460 Consumer and Technology 5
COA 5450 Consumer Legislation 5
ECO 3043 Consumer Economics 5
HME 4210 Personal and Career Management 5
SOP 4645 Consumer Psychology 5
SOP 4649 Experimental Consumer Psychology 7
Career Traineeship in Consumer Affairs 10
Elective 5

## FAMILY AND CHILD DEVELOPMENT

Graduates from this program are prepared to enter professions which require a breadth of knowledge related to families and children, such as day care management, parent education, nursery school teaching, or employment in federal and state agencies serving the family.
Quarter Hours
Core Courses: 24
COA 3410
Consumer Resources 5
CTE 3312
Clothing and the Consumer 5
HME 4210 Personal and Career Management 5
HHD 4420 Home Furnishings and Equipment 5
HUN $4410 \quad$ Nutrition: Infancy Thru Adolescence 43
Specialization:
4
CHD $3220 \quad$ Child Development: Infancy and Early Childhood 5
CHD 4230 Child Development: Later Childhood 5
FAD 3232 Changing Roles in Family Relations 3
FAD 4230 Family Life Cycle 5
FAD 4940 Human Development Practicum 5
Other courses related to family and child development 20
Advised Electives 15
Career Traineeship 10

## FASHION MERCHANDISING

The Fashion Merchandising specialization is designed for students with A.A. or A.S. degrees in this subject. In addition to the regular program there is an opportunity for students with special career interests to select alternate specializations in one of these areas: Consumer Affairs, Advertising and Promotion, Communications or Fashion Coordination.

Quarter Hours
Core Courses:
COA 3410
Consumer Resources
5
CTE $3312 \quad$ Clothing and the Consumer
5
CTE 3401 Consumer Textiles 5
CTE 4602 Fashion and Culture 5
HME 4210 Personal and Career Management 5
Specialization: Intro. to Computers and Computer Applications 5
COC 3300 5
CTE 3852 Visual Merchandising 5
CTE 4761 Fashion Production and Distribution 5
CTE 4821 Quantitative Decisions in Fashion Retailing 5
CTE 4827 Fashion Buying and Merchandising Strategies 5
CTE 4890 Fashion Merchandising Career Seminar 2
Related Business Courses:
25
ECO 3003 Economics, Man, and Society or
MAN 3701 Business and Society 5
MAR 3023 Marketing Management 5
MAR 4153 Retail Management I 5
MAR 4154 Retail Management II 5
MAR 4303 Advertising Management 5
Advised Elective
5
Career Traineeship
CTE $4880 \quad$ Fashion Field Experience 10

## FOOD AND NUTRITION

This specialization provides professional preparation for a home economist who desires career opportunities related to food and nutrition but who does not desire to become a dietitian.

CHD 3220
COA 3410
CTE 3312
FAD 4230
HME 4210
HHD 4420

Child Development: Infancy and Early Childhood Consumer Resources 5 5 Clothing and the Consumer 5 Family Life Cycle 3 Personal and Career Management 5 Home Furnishings and Equipment 5

## Specialization:

CHM 3030
CHM 3200
Survey of General Chemistry and Lab
Survey of Organic Chemistry and Lab Food and Nutrition Courses535
5738

Career Traineeship
C ..... 10

## GENERAL HOME ECONOMICS

This specialization is for those students who desire to become Home Economists but have no definite career goals related to one area of the field and do not plan to teach in the secondary schools.
Quarter Hours
Specialization: ..... 75
Clothing and Textiles courses ..... 15
Family and Child Development courses ..... 15
Food and Nutrition courses ..... 15
Housing courses ..... 15
Consumer Management courses ..... 15
Advised Electives ..... 15

## COURSE DESCRIPTIONS

## CLOTHING AND TEXTILES

## DEFINITION OF PREFIX:

CTE-Clothing and Textiles

## CTE 3310 BASIC CLOTHING CONSTRUCTION

Basic course, developing skills in wardrobe planning, clothing pattern and fabric selection, machine usage, and construction techniques, including their application in construction of apparel for personal use.
CTE 3312 CLOTHING AND THE CONSUMER
Consumer decisions related to the selection of fabrics, patterns, and ready-to-wear, with emphasis on quality and individual suitability, will be stressed. Includes construction of a simple garment. Intended for Fashion Merchandising students and non-majors.

## CTE 3401 CONSUMER TEXTILES

Study of the physical properties of textile fibers, yarns, fabrics, color applications, and finishes, as they relate to care, performance, and consumer satisfaction. Identification and analysis of fibers and fabrics will be emphasized.
CTE 3852 VISUAL MERCHANDISING
Study and application of the principles and techniques of creative "in store" and window displays. Field work included.

Additional experience in handling special fabrics; pattern and garment fitting; and application of principles and techniques of clothing construction. Prerequisite: CTE 3310, or equivalent.

## CTE 4352 TAILORING

Application of custom tailoring techniques, through the construction of a suit or coat, with emphasis on fabric selection and pattern alteration. Prerequisite: CTE 4340, or equivalent.
CTE 4421 CREATIVE TEXTILES
Laboratory class, in which students will explore techniques for designing and constructing textile fabrics. Experiences will include macrame, batik, tie-dying, weaving, knitting, and crocheting. Course is designed for Home Economics and Art Education majors.
CTE 4602 FASHION AND CULTURE
Study of historical, social-psychological, and ethnic influences in fashion design. Includes analysis of current fashion influences.

Pattern alteration stresses importance of pattern selection for individual figure types, and pattern alteration for special litting problems. Students will construct a garment, make sample pattern alterations for special fitting problems, and alter a ready-made garment. Prerequisite: CTE 3310 , or equivalent.

## CTE 4761 FASHION PRODUCTION AND DISTRIBUTION

Study of apparel industries, with supervised observation of various aspects of production and distribution.
CTE 4821 QUANTITATIVE DECISIONS FOR FASHION RETAILING
Review of basic retailing math; and application of financial management principles, with emphasis on relationships between sales volume, stock turnover, expenses and profits. Case studies used in analyzing past and present pertormance and establishing budgetary goals. Intended for students seeking opportunities in retail apparel organizations.
CTE 4827 FASHION BUYING AND MERCHANDISING STRATEGIES
Study and application of major considerations involved in buying and marketing of fashion merchandise. Includes creation and preparation of merchandise assortment plans, with emphasis on effective distribution.
CTE 4880 FASHION FIELD EXPERIENCE
(5-10)
Supervised "on-the-job" training and periodic seminars. Consent of faculty instructor required.
CTE 4890 FASHION MERCHANDISING CAREER SEMINAR
Exploration of local fashion-related career opportunities and proficiencies required for these positions. Guest speakers utilized.
CTE 4905 INDEPENDENT STUDY
Specialized intensive study of a topic not otherwise offered in the University. Consent of faculty supervisor and department chairperson is required.
CTE 4930 SPECIAL TOPICS
For groups of students who wish an intensive study of topics not otherwise offered in the University. Consent of taculty supervisor and department chairperson is required.
CTE 5345 NEW TRENDS IN CLOTHING CONSTRUCTION
A study of the latest techniques for sewing today's fabrics, including some factory methods. Prerequisite: CTE 4340, or equivalent.

## CTE 5355 TAILORING MENSWEAR

Application of tailoring techniques commercially used in the production of menswear, through the construction of a knit jacket and trousers. Prerequisite: CTE 4340, or equivalent.
CTE 5422 TODAY'S TEXTILES
Exploration into recent developments in textile tibers and fabrics. Laboratory exercises in textile-testing procedures.
CTE 5746 PATTERN DESIGN
Principles of pattern fitting will be explored, through the construction of a basic sloper. Samples of various pattern design techniques will be constructed. Students will design and construct at least one garment. Prerequisite: CTE 4741, or CTE 4340.
CTE 5905 INDEPENDENT STUDY
Specialized intensive study in an area of special interest to the student. Consent of faculty instructor required.
CTE 5930 TEXTILES AND CLOTHING SEMINAR
(1-5)
By permission of instructor only.

## FAMILY AND CHILD DEVELOPMENT

## DEFINITION OF PREFIXES

CHD-Child Development; FAD-Family Development.

## CHD 3220 CHILD DEVELOPMENT: INFANCY AND EARLY CHILDHOOD

Systematic study of total developmental process in the child from conception through early childhood, emphasizing the effects of home and family environment. Includes observational experiences. Prerequisite: DEP 3001, or equivalent.
CHD 4230 CHILD DEVELOPMENT: LATER CHILDHOOD
Extension of the study of developmental patterns of children, with emphasis on physical, intellectual, social and emotional maturation through adolescence. Analysis of environmental and home influences.
CHD 5264 ADVANCED STUDIES IN CHILD DEVOPMENT
(5)

Survey of current literature on selected areas, analysis of trends and issues, and investigation of recent research in Child Development. Prerequisites: CHD 3220, CHD 4230, or equivalent.
FAD 3232 CHANGING ROLES IN FAMILY RELATIONSHIPS
Emphasızes attıtudes, leelings, communication, life styles in varying interpersonal relationships.
FAD 4230 THE FAMILY LIFE CYCLE dents may select a day care center, public school, nursing home, hospital or other community service agency. Prerequisites: CHD 3220, 4230, FAD 4230, or equivalent.

The dynamics of family interaction and structure, including analysis of socioeconomic and cultural influences, crisis-producing situations, and current issues and trends alfecting the family unit.
FAD 5450 WORKSHOP IN FAMILY AND CHILD DEVELOPMENT
Short-term intensive study of special facets, issues and trends of Child Development and/or Family Development.
FAD 5900 INDEPENDENT STUDY IN FAMILY AND CHILD DEVELOPMENT
Individually selected program of supervised study in a specific area of Farnily and Child Development. Prerequisite: Permission of Instructor.

## GENERAL HOME ECONOMICS

DEFINITION OF PREFIX:
HOE-Home Economics: General.

## HOE 3949 COOPERATIVE EDUCATION IN HOME ECONOMICS

(5-15)
Supervised full time work quarter for Home Economics students. Limited to students admitted to the coop Program with consent of advisor. Evaluation and report required.
HOE 4940 CAREER TRAINEESHIP IN HOME ECONOMICS
Community based, supervised practical experience in a home economics-related career, to provide opportunity for career exploration in chosen field, and application of knowledge to practical situations. Permission of instructor required.

## MANAGEMENT AND CONSUMER AFFAIRS

## DEFINITION OF PREFIXES

COA-Consumer Affairs; HME—Home Management \& Equipment; HHD-Housing \& Home Design.

## COA 3130 PERSONAL AND FAMILY ECONOMICS

Examination of factors related to achieving personal and family goals through systematic financial planning. Overview of management by objectives, credit, insurance, investment, homeownership, and taxation, with opportunities for personal and family application.

## COA 3410 CONSUMER RESOURCES

Evaluation of information needed to make effective consumer choices. Includes sources of consumer help and protection, pertinent legislation, and ecological conditions with which consumer interacts. Experiences provided in product and service comparison.
COA 4440 CONSUMER COUNSELING
Application ol consumer and management knowledge and skills to helping individuals and families make financial decisions. Case study approach used. For those who anticipate careers in helping professions involving consumer and credit services. Prerequisites: COA 3410, HME 4210, and permission of instructor.
COA 4460 CONSUMER AND TECHNOLOGY
Study of the interrelationship of the consumer and the industrial/business community, including the roles and responsibilities of each. Special topics include the effect of decisions on product cost, life styles and the environment; as well as the role of government in the marketplace.
COA 4940 CAREER TRAINEESHIP IN CONSUMER AFFAIRS
(5-15)
Community based, supervised practical experience in consumer-related career to provide exploration and application opportunities. Permission of instructor required.
COA 5450 CONSUMER LEGISLATION
Designed to provide those presently working in the consumer field, or preparing for a career related to consumer affairs, with current information on legislation affecting the consumer. Utilizes professionals in the community.
HHD 4420 HOME FURNISHINGS AND EQUIPMENT
Principles involved in the construction, selection, operation, and care of furnishings and equipment and their relationship to their environmental use. Prerequisite: IND 3020, or equivalent.
HME 4210 PERSONAL AND CAREER MANAGEMENT
Application of management principles to personal and family living, as well as career effectiveness. Emphasis on planning and organizational skills as assets in the business world as well as tools with which to promote personal and family satisfaction. Open to non-majors.
HME 4230 MANAGEMENT OF PERSONAL AND FAMILY RESOURCES
Application of management principles to personal and family decisions including human and non-human resources, including finances. Opportunity for community observation of management decisions made by persons of various ethnic groups and/or life styles and an analysis of the effect of these decisions on family relationships and personal success.

## HME 4940 CAREER TRAINEESHIP IN MANAGEMENT

(5-15)
Community based, supervised practical experience in observing and providing helping experience to persons with special management problems such as the elderly, the handicapped and/or those with limited resources. Prerequisites: COA 3130, COA 3410, HME 4230, or equivalent. ment of resources. Discussion of problems related to one parent homes; retirement, poverty, death; working parents; migrant families, and, other human situations. Prerequisites: COA 3410, HME 4230 or instructor's approval.

# INDUSTRIAL SYSTEMS DEPARTMENT 

Gabriel G. Aurioles, Associate Professor and Chairperson<br>James E. Couch, Associate Professor<br>Sybil de Groot, Associate Professor<br>Jesse R. Fairbanks, Associate Professor<br>Donald F. Wallace, Associate Professor<br>Judy R. Ellis, Assistant Professor<br>Neil M. Hout-Cooper, Assistant Professor<br>John R. Krobock, Assistant Professor<br>John Remington, Assistant Professor Evodio Llevada, Instructor

## INDUSTRIAL TECHNOLOGY

The individual who wishes to acquire a technical supervision and management background which emphasizes industrial operations will be served by the Industrial Technology major. Each Industrial Technology major is enrolled as a department major and receives an individualized program of study. By careful planning, and the application of courses available in the School and elsewhere in the University, it is possible to provide for specialization which responds to the needs of a wide variety of industrial and commercial enterprizes.

Industrial Technology is defined as a profession in which an understanding of the technical terminology of industry provides a capability of performing technical liaison between management, engineer, scientist, technician, craftsman and customer. The work of the industrial technologist has some characteristics of Engineering Technology and many of the qualities associated with management.

The objectives of the department are: to develop an understanding of the technical aspects of industry; to become familiar with terminology used in industry and business; to develop supervisory skills involving specialized knowledge, analytical ability and management tools; to develop leadership skills; to effect individual judgment and initiative; to establish effective communications with scientists, managers, engineers, customers and workers.
Campus Location: Tamiami Campus only
DEGREE: Bachelor of Science or Bachelor of Technology
LOWER DIVISION PREPARATION: Students must have completed a community college associate's program or attained junior standing at a four-year college. Lower-division courses should be selected in the field for which upper-division specialization is desired. In general, the individual's upper-division program is structured to complement lower-division preparation rather than supplement it. For example, the preparation listed below, or equivalent, is expected for typical upper-division Industrial systems programs of study:

Typical Upper-Level Specialization
Apparel Management
Communications Technology
Industrial Operations

> Typical Lower-Division Preparation
> Home Economics, Fashion Design
> Communications Technology
> Mass Communications
> Engineering Technology
> Industrial Technology
> Business Management

Industrial Systems
Industrial Safety

Pre-Engineering
Engineering Technology
Pre-Engineering
Industrial Arts

A major characteristic of the Industrial Systems Department is individual evaluation and curriculum planning. Consequently, prospective students are urged to consult an advisor to discuss their objectives and academic preparation.

Quarter Hours
Major Requirements and Electives
The student must complete a planned individual program of study, including a coherent specialization, which is approved by an advisor and the School of Technology. The program must satisfy the objectives of the Industrial Systems Department, the career objectives of the student, and the general requirements for a bachelor's degree from the School of Technology.

## PROFESSIONAL CERTIFICATE PROGRAM <br> INDUSTRIAL SAFETY

The objective of the Professional Certificate Program in Industrial Safety is to present an integrated learning experience that will provide the student with a minimum level of expertise in the specialized area of Occupational Safety. Particular emphasis will be placed on application, interpretation and administration of the Federal Occupational Satety and Health Act and other regulations in an industrial setting. The program is intended to provide skills which will be directly applied in industry.

The Certificate will be awarded to any student who successfully completes the following 30 -credit program, or equivalent:

ETI 3700 Industrial Safety 5
BCN 3730 Construction Safety 5
ETI $4708 \quad$ Health Hazards in Industry 5
HES 4432 Safety Management 5
ETI 4632 Personnnel Relations 5
ETI 4681 Industrial Supervision 5

## INDUSTRIAL \& LABOR RELATIONS

The objective of the Professional Certificate Program in Industrial \& Labor Relations is to provide students desiring to pursue professional work in the fields of industrial and labor relations and labor studies with a flexible course of study. The program has been designed to provide options to both baccalaureate degree seeking students and pre and post baccalaureate students in the fields of labor studies, industrial personnel operations, collective bargaining and labor-management relations.

The Certificate will be awarded to any student who successfully completes the following program of 20 required and 10 elective credits, or their equivalent:

ETI 4633 Introduction to Labor Studies 5
BCN 4741 Industrial and Labor Relations Law 5
ETI $4632 \quad$ Personnel Relations 5
ETI 4905 Independent Study (Field Project) 5
Elective: (Any 2)
ETI 4635
Administration of Labor Organizations 5
ETI $4634 \quad$ Labor and Industrial Dispute Resolution 5
ETI $3700 \quad$ Safety in Industry 5
ECP 4203 Labor Economics 5
MAN 4410 Labor, Management, and Collective Bargaining 5
SOC 5261 Industrial Sociology 5

## COURSE DESCRIPTIONS

## COMMUNICATION TECHNOLOGY

## DEFINITION OF PREFIXES

ETD-Engineering Tech: Dralting; JOU-Journalism; MAN-Management; MMC-Mass Media Communication; PUR-Public Relations; RTV-Radio-Television; VIC-Visual Communication.

## ETD 3020 TECHNICAL COMMUNICATIONS

The goal ol this course is to give the student an understanding of the role of graphic and written language in the conception and communication of technical ideas. The course is flexible in order to accommodate diflerent student backgrounds. Basic graphical methods including multiview and isometric drawings; flow diagrams; charts, graphs and diagrams: graphical presentation ol data; use of resource materials in the library; and standards lor written reports are discussed.
JOU 3100 NEWS REPORTING
To teach the skills necessary to recognize and produce a good news or feature story. Experience with actual interviews, discussions with successful writers and journalists, and critique of student work. News judgment and identification of proper sources will be introduced.

## JOU 3109 INTERVIEWING TECHNIQUES

The interview as a source of information and as a story. Preparing and conducting interviews, including planning of questions, note-taking and transcription, writing and editing. The symposium interview; the press conference; the personality sketch.

## JOU 3200 EDITING AND MAKE-UP

Practical skills involved in putting out a newspaper; editing copy for clarity, facts and brevity; headline writing; page make-up; copy reading and proofreading marks. Attention will be given to editing for T.V. and radio news and leatures.

## JOU 3202 ADVANCED EDITING AND GRAPHICS USE

Study ol makeup, layout and design techniques as they pertain to production of magazines, brochures, newsletters and newspapers. Provides an opportunity for individualized projects related to print communications. Prerequisites: JOU 3200 and JOU 3100, or equivalents.

## JOU 3203 ELECTRONIC EDITING TECHNIQUES

Study of principles and practical hands-on usage of the Video Display Terminal, and its integral role in print media, especially newspaper production and design.

## JOU 3300 FEATURE WRITING

The lact story: researched and written in depth. Planning, constructing, writing and marketing non-fiction articles for general and special interest magazines and newspaper feature pages. Includes the query letter; preparing photos and illustrations to accompany the article.

## JOU 3600 PHOTOJOURNALISM

Study of principles and practice of photographic assignments related to coverage of news and feature events; and methods of selecting final photographs from contact prints.
JOU 4104 REPORTING OF PUBLIC AFFAIRS
To teach the student how to cover government activities for newspapers, television, and radio. Aspects of the budget ollice, county manager's office, and the commissioner's office, courts, and planning and zoning will be outlined. Guest speakers from government offices will appear.
MAN 3504 INDUSTRIAL OPERATIONS
The industrial structure is studied to see how the various areas and functions are related to each other. The material covered should give the student an overview of the operations of the organization and an understanding of the fundamental principles of management which lead toward effective coordination and control.
MMC 4200 MASS COMMUNICATIONS LAW
Study of laws that regulate U.S. mass media, interpretations of these laws through recent court decisions, and the ways communicators work within the statutes of their nation and state.
MMC 4602 ROLE OF MASS MEDIA IN SOCIETY
To investigate the role played in the U.S. by the mass communications media as a cultural, social, informational, economic, political and educational force. The interrelationship of all media and their potential impact on the collective population will be studied.

## MMC 4945 COMMUNICATIONS INTERNSHIP

(1-10)
On the job learning activity at selected and approved commercial media. Will include newspaper, magazine, radio, television and agency placement. Prerequisite: Consent of advisor.
PUR 4000 THEORY AND PRINCIPLES OF PUBLIC RELATIONS
A course suitable tor students of management in all aeras of other disciplines, as well as the basic introduction to the theory, history, practice, and future of public relations. A comprehensive study of the field. Prerequisite: MAR 4303, or consent of instructor.

## PUR 4800 PLANNING AND IMPLEMENTATION OF PUBLIC RELATIONS CAMPAIGNS

An advanced course in application of theory to actual implementation of public relations activities. Will include practice in preparation of speech ghostwriting, press kits, handling of special events, and complete production on a team basis of a multimedia public relations presentation. Prerequisite: PUR 4000, or consent ot instructor.
PUR 4934 PUBLIC RELATIONS SEMINAR
Open to public relations emphasis students only. A course designed to allow the advanced public relations sfudent to pursue a specially selected, specific area of public relations (i.e. political, medical, finan-
cial, governmental, corporate, educational, etc.) through in-depth study under a tutorial style of instruction and guidance. Prerequisites: PUR 4000 and PUR 4800, or consent of instructor.

## RTV 3100 WRITING FOR ELECTRONIC MEDIA

Practical assignments in the writing of news for radio and television. Will include gathering, processing and final preparation ol scripts. Emphasis will be on skills development. A brief study of libel, invasion of privacy, lairness doctrine and equal time will be included. Prerequisites: JOU 3100, JOU 3109, or equivalents

## RTV 4205 COMMUNICATIONS TECHNOLOGY PRACTICUM

Practice in communications technology activities learned during attendance in Communications
Technology VIC 4300. Implementatıon of television studıo production activities.
VIC 4300 COMMUNICATIONS TECHNOLOGY
This course will provide the study of modern communication equipment usage and impact, with special emphasis upon electronic and visual transmission, reception and projection capabilities and methods. Future development and instrumentation in technical communication systems will also be stressed.

## INDUSTRIAL SYSTEMS

## DEFINITION OF PREFIXES

ARV-Arts: Vocational; BCN-Building Construction; ETC-Engineering Tech.: Civil; ETD-Engineering Tech.: Dralting; ETE-Engineering Tech.: Electrical; ETG-Engineering Tech.: Mechanical; ETI-Engineering Tech.: Industrial; ETM—Engineering Tech.: Mechanical; HES—Health, Education \& Salety; OTH—Occupational Therapy; STA-Statistics

## ARV 3210 REPROGRAPHICS

Laboratory experiences in the theory and practice of communicating through graphics; includes experiences in copywriting, editing, image generation, image assembly, photo conversion, image carrier preparation, transfer, and finishing
ARV 4250 PLANOGRAPHIC PROCESSES
Laboratory experiences in the theory and practice of offset lithography. Emphasis will be directed toward skill development in design and copy preparation, process photography, stripping, platemaking, and duplicator operation.

## ARV 4150 PHOTOGRAPHICS

Laboratory experiences in the theory and practice of photography as used in visual communications.
Develops proficiencies in camera work, developing, and printing
BCN 3702 CONSTRUCTION TECHNOLOGY
Laboratory experiences of basic production, management and personnel practices as they relate to construction systems and projects.
BCN 3730 CONSTRUCTION SAFETY
Introduces occupational safety hazards associated with the construction industry. Emphasis placed on recognition, evaluation and control of safety hazards particularly as they relate to the Occupational Salety and Health Act.
BCN 4033 INDUSTRIAL RESEARCH AND DEVELOPMENT
Laboratory experiences in formulating, researching, designing, and developing prototypes of constructed and manufactured products and processes. Prerequisite: BCN 3702 or ETI 3417C.
BCN 4251C ARCHITECTURAL DRAFTING
Laboratory experiences in designing structures, developing working drawings and specifications for constructed projects. Includes development of site, foundation, floor, elevations, plumbing plans, and specifications.
ETC 4252L CONSTRUCTION PROCESSES
Laboratory experiences in the principles and practices of the construction trades. Includes concrete and plaster trades, electrical, plumbing, carpentry, iron work, sheetmetal, roof and finishing trades in setting foundations, erecting structures, installing mechanical and electrical systems, applying surface material and finishing.
ETD 4525C DRAFTING I
Laboratory experiences in the principles and practice of idea development and expression through free hand sketching and conventional instrument drafting. A beginning course for students with no prior drafting experience.
ETD 4526C DRAFTING II (5)

Laboratory experiences in the principles and practices of product design and communication. Includes conventions, projections, and dimensions and problems of making drawings for product production. Prerequisite: ETD 4525C, or equivalent.
ETE 4562 ELECTRICAL/ELECTRONIC POWER SYSTEMS
Introductory course designed primarily for the novice in electricity/electronics. Laboratory experience consists of planned activities centered about electrical/electronic instrumentation and power systems.
ETG 4905 INDEPENDENT STUDY (1-5)
Specialized intensive study in an area of special interest to the student. Consent of faculty instructor required.
ETG 4930 SPECIAL TOPICS
For a group of students who wish intensive study of a topic not otherwise offered in the University. Consent of taculty supervisor and department chairperson required.

Modern concepts for managing the quality function of industry to maximize customer satisfaction at minimum quality cost. The economics of quality, process control, organization, quality improvement, vendor quality.
ETI 34 17C MANUFACTURING TECHNOLOGY
Laboratory experiences of basic manufacturing, management, personnel, and production practices as they relate to products and processes. Safety procedures.
ETI 3444 AUTOMATION
A study ol the technology of automation including the economics of management policies for the major
industrial changes influencing automation planning.
ETI 3645 PRODUCTION PLANNING AND CONTROLI
Introduction to production planning and control concepts including their function within total planning, forecasting, estimating, processing instructions, and manpower allocations. Prerequisite: MAN 3504, or equivalent.
ETI 3646 PRODUCTION PLANNING AND CONTROL II
The functions of a production planning and control organization at work. Topics in the area of inventory control, scheduling, dispatching and flow control. Prerequisite: ETI 3645, or equivalent.
ETI 3661 PLANT LAYOUT
To effect the coordination of the physical plant facilities to combine the men, materials and machines necessary for operation in the most economical arrangement. Prerequisite: ETI 4660, or equivalent.
ETI 3670 INDUSTRIAL FINANCIAL DECISIONS
The accounting process and use of financial techniques and data in planning, controlling, and coordinating industrial activities. This course is intended to familiarize the student with accounting concepts, analytical methods, and use of accounting information for purposes of operation and control.
ETI 3700 SAFETY IN INDUSTRY
Introduces occupational salety and health hazards associated with mechanical systems, materials handling, electrical systems, and chemical processes. Illustrates controls through engineering revision, safeguarding and personal protective equipment. Emphasis placed on recognition, evaluation and control of occupational safety and health hazards.

## ETI 4421C MATERIALS PROCESSING

Laboratory experiences in the principles and practices of separating, forming, and combining techniques to produce components, subassemblies, assemblies and finished products. Includes a variety of materials, equipment and fabrication techniques.

## ETI 4452 MAINTENANCE PLANNING

A study of the maintenance function in the industrial setting, including the planning and implementation of preventative maintenance techniques.
ETI 4603 METHOD IMPROVEMENT
Methods engineering and measurement of human work systems. Techniques for operation analysis, work measurement, and work sampling. Predetermined motion-time systems and standard data development are explored. Prerequisite: MAN 3504. Prerequisite or corequisite: Statistics.
STA 4605 APPLIED SYSTEMS RESEARCH
Basic industrial research techniques, operational production problems, matrix applications, inventory control, network analysis. Prerequisites: STA 3161 (or equivalent), MAS 3103.
ETI 4620 VAI.UE ANALYSIS
How to increase the value of products or services by holding quality while reducing costs, holding costs while increasing quality, or both, with emphasis on material shortages. Specific steps of value analysis used to improve industrial problem solving.
ETI 4632 PERSONNEL RELATIONS
A study ol the lunctions of personnel relations. Topics covered include determining job requirements, manpower requirements, selection, interviewing and counseling, tests, training, morale and motivation, job evaluation, wage classification, merit rating, and union-management relations.

## ETI 4633 INTRODUCTION TO LABOR STUDIES

History and development of the labor movement, with emphasis on union development as a response to industrialization and technological change. Includes the structure and functioning of modern unions, the development of modern technology, the industrial working class, and the impact of the rural-urban shift of labor.
ETI 4634 LABOR AND INDUSTRIAL DISPUTE RESOLUTION
Theory and practice ol dispute resolution in industry arbitration processes, grievances, mediation, lacilinding and conciliation. Arbitration of industrial claims and disputes, commercial arbitration. Prerequisite: ETI 4633, or equivalent.
ETI 4635 ADMINISTRATION OF LABOR ORGANIZATIONS
Administratıon of labor organizations; labor policies and practices; legal requirements and financial administration of unions. Prerequisite: ETI 4633 or equivalent.

## ETI 4650 INDUSTRIAL INFORMATION SYSTEMS

Introduction to systems concepts. Planning design and implementation of information systems, decisionmaking with systems, and system organization. Prerequisite: COP 3170 or COP 3110, or equivalent.

A survey of materials handling elements, the unit load, packaging, bulk handling, and the economics of materials handling improvement of existing handling methods, justification for handling equipment, special handling techniques, and the management of the materials handling divisions in the industrial organizatıon.

The study of the economics of decision-making in business and industry. Includes an analysis of the concepts of break-even, least cost and the diflerences between alternatives when related to the time value of money. Budgeting, labor and cost control, relative to the industrial engineering technologist, is also considered

## ETI 4681 INDUSTRIAL SUPERVISION

Overview ol the supervisor's lunctions, responsibility, and over-all role in management in industry.

## ETI 4683 HUMAN FACTORS ENGINEERING

Examination ol the ways to fit jobs and objects better to the nature and capacity of the human being. Lec-
tures will review man's performance capability, singly and in groups, in interacting with his work environment. Stresses the practical application of human lactors principles.
ETI 4690 INDUSTRIAL SALES
Fundamentals of technical sales. Analysis of buyer's needs. Experiments, trial runs and demonstrations.
The sale ol machinery, raw materials and technical services. Credit and financing considerations. Measures of performance. Case studies.
ETI 4691 WOMEN IN INDUSTRY
Development of supervisory and technical skills for women in industrial operations. Practice in plar ning, organizing, decision-making, and employee direction, with particular emphasis on the woman as supervisor, manager or in the technical professions.
ETI 4708 HEALTH HAZARDS IN INDUSTRY
A continuation of Safety in Industry. An introduction to OSHA regulations on health hazards. Noise, radia-
tion, and dust problems in the industry. Special hazards with solvents, asbestos, lead, silica, and other chemicals. OSHA compliance procedures. Prerequisite: ETI 3700.
ETI 4905 INDEPENDENT STUDY
Specialized intensive study in an area of special interest to the student. Consent of faculty instructor required.
ETM 4407 MECHANICAL POWER SYSTEMS I
Laboratory experiences in the theory of operation and related maintenance of single and multiple cylinder reciprocating engines. Includes introductory experience with mechanical, fluid, and pneumatic power systems.
ETM 4408 MECHANICAL POWER SYSTEMS II
Advanced laboratory experiences with reciprocating engines. Introductory study of turbine, diesel, and rotary engines. Introductory study ol aircraft structures and basic aero dynamics. Prerequisite: ETM 4407, or equivalent.
ETM 4823C MATERIALS OF INDUSTRY
Laboratory experiences in the theory and practice of characteristics of materials of industry. Includes test and measurement of stress, strain, torsion, tensile strength, fatigue, and hardness of metals, wood, labrics, ceramics and synthetics.
HES 4432 SAFETY MANAGEMENT
Basic concepts of safety management. Fundamentals of loss control, policies, accountability, measurement and appraisal of the safety function in industry. The technique of operations review. Systems salety. Motivation. Products safety. Case studies. Prerequisites: BCN 3730 and ETI 4708, or equivalent.
OTH 3123 TECHNOLOGY FOR OCCUPATIONAL THERAPY
The basic properties of woods and metals and the techniques used by occupational therapists in planning a project based on a hypothetical patient's problem.


## ROTC PROGRAMS <br> AIR FORCE ROTC

Florida International University, in cooperation with the University of Miami, offers Air Force ROTC to full-time students through an enrollment agreement between the two institutions. All classes and leadership labs are taught on the University of Miami campus. Questions regarding the Air Force ROTC program should be directed to the Department of Aerospace Studies at the University of Miami, 284-2870.

## LOWER DIVISION PREPARATION:

Required Courses: Aerospace Studies 1000 and 2000 (see remarks), 4 semesters credit.
Remarks: Lower division requirements may be waived if the student (1) is a veteran, or (2) is selected for a two-year (upper division only) program and attends a six-week preparatory camp before enrolling in AFR 3201C.
UPPER DIVISION PROGRAM:
Required Courses:
AFR 3201C, 3210 C
AFR 4220, 4230 C
Remarks: The upper division program is designed to prepare interested and qualified students for commissioning as officers in the U.S. Air Force upon graduation. Students are furnished uniforms and textbooks and receive $\$ 100.00$ per month during the academic year.

## ARMY ROTC PROGRAM

Florida International's Army ROTC Program is offered through a cross-enrollment agreement with the University of Miami. The classroom portion of the courses are taught at Florida International one day each week. Any questions should be referred to the Military Science Department at the University of Miami.
LOWER DIVISION PREPARATION:
Required Courses: Military Science I and II (See remarks).
Remarks: The lower division requirements may be waived if the student (1) is a veteran or (2) attends a basic camp prior to entering MIS 3423.

UPPER DIVISION PROGRAM:
Required Courses:
MIS 3423, 3310
MIS 4120, 4410
Remarks: The program is designed to select interested and qualified individuals for entry into the U.S. Army on an active duty or reserve status.

## MARINE OFFICER PROGRAMS

Qualified students may apply for an officer program leading to a commission as a Second Lieutenant in the United States Marine Corps. Commissions are offered in both ground and aviation components. The Platoon Leaders Course (PLC) is offered to freshmen, sophomores and juniors who attend precommissioning training during the summer. Financial assistance and Flight Indoctrination Programs are available. Qualified seniors attend twelve weeks of training in the Officer Candidate Course (OCC) after graduation. For details, contact the Career Development and Placement Office, or the Marine Officer Selection Officer when he is on campus.

## COURSE DESCRIPTIONS

## AIR FORCE ROTC

## AFR 3201 FIRST YEAR ADVANCED

Prolessionalism; responsıbilities; the Military Justice System; leadership theory and practices; management tools, principles, practice; problem solving.

## AFR 3210 FIRST YEAR ADVANCED

(3) (W)

Continuation of AIS 301
AFR 4220 SECOND YEAR ADVANCED
(3) $(F)$

Principal requisites for maintaining adequate national security forces. Functional processes and institutional structure involved in the formulation and implementation of U.S. defense policy.

## AFR 4230 SECOND YEAR ADVANCED

(3) (W)

Political, economic and social constraints affecting the formulation of U.S. defense policy. The impact of both technological and international developments upon strategic preparedness and the overall defense policy-making process.

## ARMY ROTC

MIS 3423 MILITARY LEADERSHIP AND MOTIVATION
(3) (ADVANCED MS III)

A behavioral science approach to military leadership and motivation, with emphasis on crisis-oriented organizations.
MIS 3310 ADVANCED MILITARY III
Applied tactics; principles and fundmentals of tactical operations. Advanced leadership.

## MIS 4120 ADVANCED MILITARY SCIENCE IV

World power relationships: world change and military implications. Applied leadership. Military administration and justice.
MIS 4410 ADVANCED MILITARY SCIENCE IV
Theory and dynamics of the military team. Applied leadership.

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| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| ${ }^{23}{ }_{30} 22$ | 31 | 25 | 26 | 27 | 28 | 29 |


| AUGUST |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
|  |  | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |  |  |


| SEPTEMBER |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ |
| $S$ |  |  |  |  |  |
| 3 | 4 | 5 | 6 | 7 | 8 |$)$


| OCTOBER |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 |  |  |  |  |


| NOVEMBER |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
|  |  |  | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 |  |  |


| DECEMBER |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
| 3 | 4 | 5 | 6 | 7 | 1 | 2 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| $24_{31}$ | 25 | 26 | 27 | 28 | 29 | 30 |

CALENDAR 1979

| JANUARY |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 |  |  |  |


| FEBRUARY |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
|  |  |  |  | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 |  |  |  |


| MARCH |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
|  |  |  | 1 | 2 | 3 |  |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |


| APRIL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 |  |  |  |  |  |


| MAY |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
|  |  | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |  |  |


| JUNE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S | $M$ | $T$ | $W$ | $T$ | $F$ | $S$ |
|  |  |  |  |  | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

# ACADEMIC CALENDAR, 1979 FLORIDA INTERNATIONAL UNIVERSITY 

## SPRING QUARTER 1979

| January 3 | Last Day for Receipt of Applications for Foreign Students Applying From Out of the Country for Admission to Spring Quarter |
| :---: | :---: |
| March 6. | Last Day for Receipt of Applicants for Regular Admission to Spring Quarter |
| March 26 | Registration for New and Special Students |
| March 27 | Classes Begin |
| April 2 | Last Day to Complete Late Registration <br> Last Day of Official Drop and Add Period <br> Last Day to Drop Courses or Withdraw from the <br> University Without Incurring a Financial Liability <br> Last Day to Pay Fees Without a \$25.00 Late Fee |
| April 16 | Last Day to Apply for Spring Quarter Graduation |
| April 23 | Last Day to Pay Fees to Avoid Cancellation of Enrollment |
| May 7 | Last Day to Drop a Course With a Grade of DR Last Day to Withdraw from the University with WI Grade |
| May 7-11 | Official Registration Period for the Summer Quarter |
| May 14 | Last Day to Reinstate Cancelled Enrollments ( $\$ 25.00$ Reinstatement Fee) |
| May 28 | Memorial Day Holiday (University Closed) |
| June 8 | Classes End |
| June 9 | Official Commencement Exercises |
| June 12 | All Grades Due in Records Office by 12:00 Noon |

## SUMMER QUARTER 1979



## Florida International University Miami, Fiorida 33199

Non-Profit Organization U.S. Postage PAID Miami, FI. 33199 Permit No. 3675

## BETURN REQUESTED FOR ENTIRE PUBLICATION


[^0]:    New Statewide Prefix \& Number

[^1]:    Anthropology is part of the Department of Sociology and Anthropology and all information should be obtained from that Department's office.
    Campus Location: Tamiami Campus only
    DEGREE: Bachelor of Arts
    LOWER DIVISION PREPARATION:
    Ninety quarters hours ( 60 semester hours) or the Associate of Arts degree from a community college (work should be pre-Arts and Sciences or pre-Anthropology or Sociology if such programs exist.) If the student does not have an AA degree, his background must reflect an ability to handle advanced academic work.
    Required Courses: Introduction to Cultural Anthropology, or Introduction to Physical Anthropology, or Introduction to Sociology.
    Recommended Courses: (1) other anthropology courses, (2) ecology, economics, geography, history, political science, psychology, (3) arts, biology, English, foreign languages, mathematics, philosophy.

[^2]:    Any student attempting to change to a new or revised major in the School of Business and Organizational Sciences must meet the requirements that exist at the time of the change.

[^3]:    *NURSING - The nursing program is a non-traditional upper division undergraduate
    ram leading to the Bachelor of Science degree in Nursing. The curriculum is organized
    *NURSING - The nursing program is a non-traditional upper division undergraduate
    program leading to the Bachelor of Science degree in Nursing. The curriculum is organized

