



**Florida  
International  
University  
Catalog 1978-79**

**TAMIAMI CAMPUS**

# ACADEMIC CALENDAR, 1978-79

## FLORIDA INTERNATIONAL UNIVERSITY

### FALL QUARTER 1978

July 5 .....	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
October 16 .....	Last Day to Apply for Fall Quarter Graduation
October 23 .....	Last Day to Pay Fees to Avoid Cancellation of Enrollment
November 6 .....	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 .....	Last Day to Reinstate Cancelled Enrollments (\$25.00 Reinstatement Fee)
November 23-24 .....	Thanksgiving Holiday (University Closed)
December 15 .....	Classes End
December 16 .....	Official Commencement Exercises
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
January 2 .....	Registration for New and Special Students
January 3 .....	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

*(Continued inside back cover)*



Florida International University  
Catalog 1978-79

**the state university system  
of florida**

# CONTENTS

	Pages
ACADEMIC CALENDAR (Inside front and back cover)	
GENERAL INFORMATION .....	3
Accreditation and Memberships .....	5
Southeast Florida Educational Consortium .....	5
Academic Programs .....	6
Admission .....	13
Registration .....	15
Academic Regulations .....	16
International Admissions .....	22
Fees and Refunds .....	24
Residency .....	25
STUDENT AFFAIRS .....	27
ADMINISTRATIVE AFFAIRS .....	34
UNIVERSITY OUTREACH AND SERVICES .....	37
STATEWIDE COURSE NUMBERING .....	45
ACADEMIC AFFAIRS .....	84
College of Arts and Sciences .....	84
School of Business and Organizational Sciences .....	193
School of Education .....	242
School of Health and Social Services .....	291
School of Hospitality Management .....	324
School of Technology .....	334
Air Force and Army ROTC .....	368
Marine Officer Programs .....	368
STATE BOARD OF EDUCATION .....	370
FLORIDA BOARD OF REGENTS .....	370
UNIVERSITY OFFICIALS .....	370
ADMINISTRATION, FACULTY AND STAFF .....	371
INDEX .....	388
AREA MAP .....	391

**Catalog Editor:**  
 SHARON GOTTLIEB  
*F.I.U. Academic Services*

*(Cover design and photos by Louis Venturello, Publication Department —  
 Photography by Media Department)*

# 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 professions; (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 for 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 seating 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 library 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 Inter-American 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 offers 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	*English	Liberal Studies	**Psychology
*Art	Environmental Studies	*Mathematics	Religious Studies
*Biological Sciences	*French	*Music	*Sociology
*Chemistry	*History	Philosophy	*Spanish
**Computer Science	**Humanities	Physics	Statistics
Earth Sciences	**International Relations	Political Sciences	Theatre
Economics			

\*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	Marketing
Finance	Personnel Management
Insurance	Public Administration
International Business	Real Estate
Management	Transportation
Management Information Systems.	

### School of Education

*Art	Metal Retardation
*Biological Sciences	*French
Business and Office Education	*German
Elementary Education	*Spanish
Emotional Disturbance,	*Music
*English	Physical Education (1-12)
Health Education	***Physical Sciences
Health Occupations Education	***Parks and Recreation
*History	*Social Studies
**Home Economics	Specific Learning Disabilities
Industrial Arts	Technical Education
*Mathematics	Vocational Industrial Education

*Remark:* The following programs are the initial 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

*Criminal Justice	Occupational Therapy
Dietetics and Nutrition	Physical Therapy

\*\*Health Science  
Medical Technology

\*Social Work

\*The initial academic major program offered at North Miami campus.

\*\*Consult academic advisor regarding course offerings at the North Miami campus.

### 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  
Accounting  
Finance

Real Estate  
Health Care Management  
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

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

*Psycho-Educational Services:* concentrations in

\*\*Emotional Disturbance  
\*\*Mental Retardation  
\*\*Specific Learning Disabilities

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**

Bachelor of Arts  
 Bachelor of Fine Arts  
 Bachelor of Science  
 Master of Science in Community Psychology  
 Master of Science in Mathematical Sciences

**School of Health and Social Services**

Bachelor of Sciences  
 Master of Science in Criminal Justice  
 Master of Science in Dietetics

**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 Hospitality Management**

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

<i>College/School</i>	<i>Level</i>	<i>Major Program</i>
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  
Caribbean-Latin American Studies Certificate Program  
Consumer Affairs Certificate Program  
Emergency Medical Services Certificate Program  
Ethnic Studies Certificate Programs: Black, Jewish, Cuban, Comparative  
Heating, Ventilating and Air Conditioning Design Certificate Program  
Industrial Safety Certificate Program  
Insurance Certificate Program  
Linguistics Studies Certificate Program  
Management Information Systems Certificate Program  
Marketing Certificate  
Personnel Administration Certificate Program  
Real Estate and Urban Development Certificate Program  
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 Bachelor's 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 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 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 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 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 non-credit 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 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 eligible 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 International 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, degree-seeking 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 classification 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.

1. 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.
2. A minimum 3.0 G.P.A. on all coursework completed at Florida International University.
3. Recommendation of the faculty of the College/School awarding the degree.
4. 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:

	<i>Undergraduate Quarter Hours</i>	<i>Graduate Quarter Hours</i>
Credit-Hour Loads	10	10
Selective Service	12	
Veterans Benefits (full allowance)	12	9
Veterans Benefits (¾ allowance)	9	7
Veterans Benefits (½ allowance)	6	5
Foreign Students (F-1 Visa)	15	10

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 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.

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 fulfill 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 minimum 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 towards 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 transcript 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	Definition	Grade Points Per Credit Hour
A	Excellent	4
B	Good	3
C	Average	2
D	Poor	1
F	Failure	0
CR	Satisfactory	N/A
NC	No Credit	0
IN	Incomplete	N/A
WI	Withdrew from University	N/A
AU	Audit	N/A
DR	Dropped Course	N/A
NR	Grade Not Reported	N/A
EM	Examination	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 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.

**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-of-grade 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 official 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 I-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 accurately 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

<i>Single Student</i>	<i>Undergraduate*</i>	<i>Graduate</i>
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 completion 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 I-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 established 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

	<i>Florida Residents</i>	<i>Non-Florida Residents</i>
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

	<i>Florida Residents</i>	<i>Non-Florida Residents</i>
Upper Level Undergraduate Courses	\$10.50 per qtr. hr.	\$45.50 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.

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 fee, 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 qualifying 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 evidence 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. If such student is a minor, it shall mean that the parent or parents, or legal guardian of the student shall have domicile 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 disabilities 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 applications for admission or registration at the institution on a space-available basis a Florida applicant, or, if a minor, the parent or legal 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 non-immigration 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 provision will not apply in the case of students who are non-resident aliens or who are in the United States on a non-immigration 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 domicile 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 petition 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 domicile.

(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 Dependent	1 Dependent	2 Dependents	Each Additional
	<i>Undergraduate</i>	<i>Graduate</i>				
<i>Full-Time</i>	12 quarter hours	9 quarter hours	\$311.00	\$370.00	\$422.00	\$26.00
<i>¾ Time</i>	9 quarter hours	7 quarter hours	\$233.00	\$277.00	\$317.00	\$19.00
<i>½ Time</i>	6 quarter hours	5 quarter hours	\$156.00	\$185.00	\$211.00	\$13.00
<i>Less than Half-Time</i>	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 non-varsity 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 slimmastics.

**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 Consortium also 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 University 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 university-wide 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 multi-campus, 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; set-up 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

aid awards and the billing of students for past-due accounts are responsibilities of this 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 is 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 older-aged 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-auditory-communicative 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 design 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: in-service 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 inter-library 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 films, 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 audio-visual specialist.

## **CONSORTIUM MEDIA PRIVILEGES**

Faculty, staff, 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.

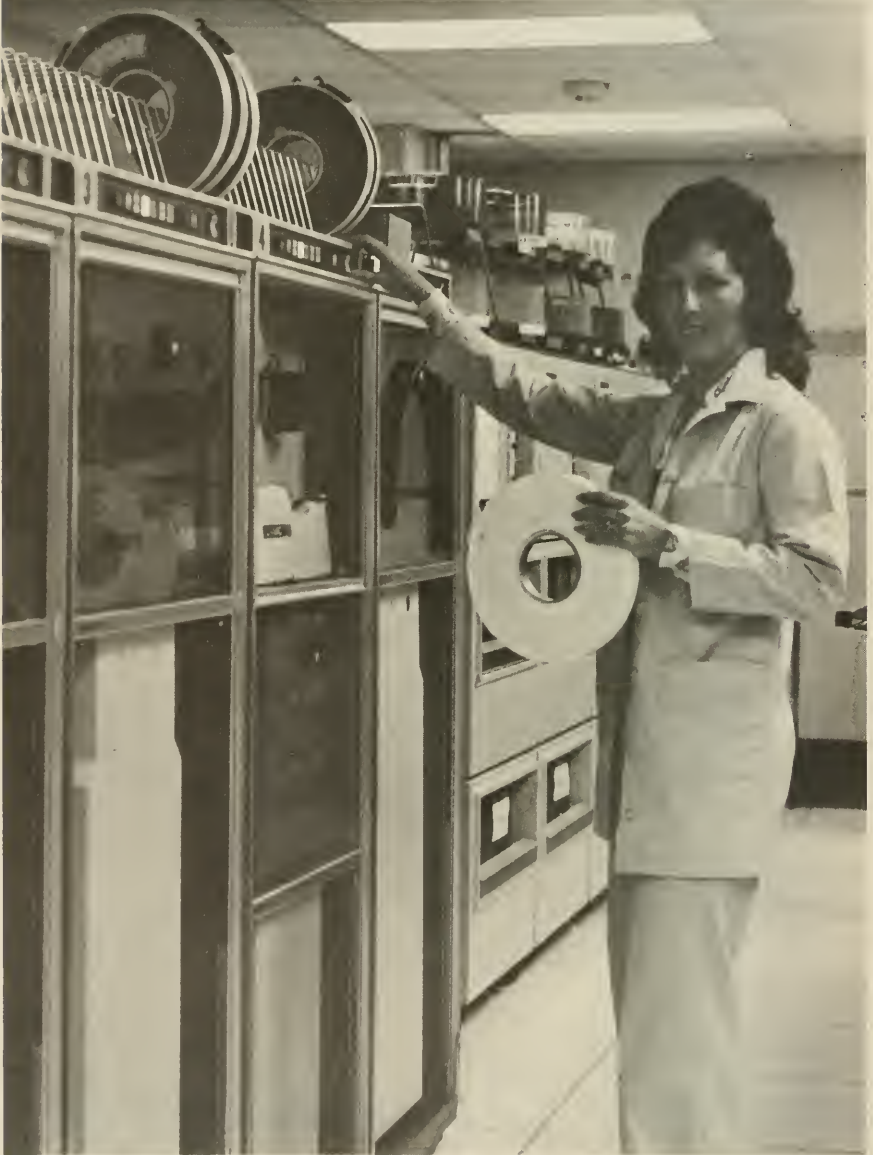
## **COMPUTER SERVICES**

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.

## Computer Services



# 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	OCB 013 (lecture only)
	OCB 013L (lab only)
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.

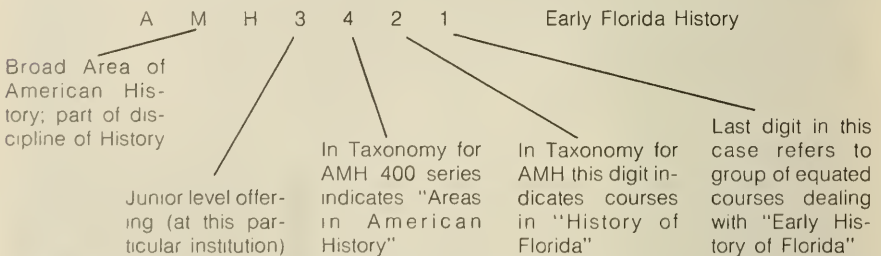
## Explanation of Prefixes and Numbers

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 prefixes 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:

<u>Discipline</u>	<u>Before</u>	<u>After</u>
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 state. Students, through their local advisors, should use this information in designing programs which will transfer 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 transferable.

D. Performance or studio courses in Art, Dance, Theatre, and Music are not automatically transferable but must be evaluated individually.



## DIRECTORY OF PREFIXES (Alphabetical)

PREFIX	SUBJECT AREAS	PREFIX	SUBJECT AREAS
ACC	Accounting	CHS	Chemistry — Specialized
ACT	Air Conditioning Trades	CHT	Chinese Literature in Translation
ADE	Adult Education	CIS	Computer & Information Systems
ADV	Advertising	CJD	Criminal Justice Development
AEB	Agricultural Economics & Business	CJT	Criminal Justice Technology
AEE	Agriculture & Extension Education	CLA	Classical & Ancient Studies
AER	Automotive/Engine Repair	CLP	Clinical Psychology
AES	Aeronautical Systems	CLT	Classical Literature in Translation
AFA	Afro-American Studies	CNM	Computational/Numerical Methods
AFH	African History	COA	Consumer Affairs
AFR	Air Force ROTC	COC	Computer Concepts
AFS	African Studies	COE	Cooperative Education
AGE	Agricultural Engineering	COM	Communication
AGG	Agriculture — General	COP	Computer Programming
AGR	Agronomy	COS	Cosmology
AMH	American History	COT	Computer Theory
AML	American Literature	CPO	Comparative Politics
AMS	American Studies	CPS	Comparative Policy Studies (Multi-National)
ANS	Animal Science	CPT	Cardiopulmonary Technology
ANT	Anthropology	CRM	Computer Resources/Management
APB	Applied Biology	GRW	Creative Writing
ARA	Arabic Language	CTE	Clothing & Textiles
ARC	Architecture	CYP	Community Psychology
ARE	Art Education	CZE	Czech Language
ARH	Art History	CZT	Czech Literature in Translation
ART	Art	CZW	Czech Literature (Writings)
ARV	Arts, Vocational		
ASC	Aeronautical Science	DAA	Dance Activities
ASG	Animal Science — General	DAE	Dance Education
ASH	Asian History	DAN	Dance
ASI	Astronomy — Instrumentation	DAS	Dairy Science
ASN	Asian Studies	DEA	Dental Assisting
AST	Astronomy	DEC	Distributive Ed Coordinators
ATE	Animal Science Technology	DEH	Dental Hygiene
ATF	Aviation Technology Flight	DEN	Dentistry
ATM	Aviation Technology Maintenance	DEP	Developmental Psychology
ATT	Aviation Technology Theory	DES	Dental Support
AVM	Aviation Management	DHE	Demography & Human Ecology
		DIE	Dietetics
BAN	Banking	DTE	Dental Lab Technology
BCC	Basic Clinical Clerkship		
BCH	Biochemistry	EAB	Experimental Analysis of Behavior
BCN	Building Construction	EAS	Engineering: Aerospace
BCT	Building Construction Trades	ECH	Engineering: Chemical
BES	Behavioral Studies	ECI	Engineering: Civil
BMS	Basic Medical Sciences	ECM	Engineering: Computer Mathematics
BOT	Botany	ECO	Economics
BSC	Biological Science	ECP	Economic Problems & Policy
BTE	Business Teacher Education	ECS	Economics Systems & Development
BUL	Business Law	EDA	Education: Administration
		EDE	Education: Elementary
CAP	Computer Applications	EDF	Education: Foundations
CBH	Comparative Psychology & Animal Behavior	EDG	Education: General
CCJ	Criminology & Criminal Justice	EDH	Education: Higher
CDA	Computer Design/Architecture	EDM	Education: Middle School
CES	Civil Engineering Structures	EDP	Educational Psychology
CHD	Child Development		
CHI	Chinese Language		
CHM	Chemistry		

<b>PREFIX</b>	<b>SUBJECT AREAS</b>	<b>PREFIX</b>	<b>SUBJECT AREAS</b>
EDS	Education: Supervision	FOT	Foreign & Biblical Languages In Translation
EEC	Education: Early Childhood	FOW	Foreign & Biblical Languages Comparative Literature
EED	Education: Emotional Disorders	FRC	Fruit Crops
EEL	Engineering: Electrical	FRE	French Language
EER	Electrical/Electronics Repair	FRT	French Literature in Translation
EES	Environmental Engineering Science	FRW	French Literature (Writings)
EEX	Education: Exceptional Child — Core Competencies	FSE	Funeral Service Education
EGC	Guidance & Counseling	FSS	Food Service Systems
EGI	Education: Exceptional Child — Gifted	GCO	Golf Course Operations
EGM	Engineering: Mechanical	GEA	Geography — Regional (Area)
EGN	Engineering: General	GEB	General Business
EHD	Education: Hard of Hearing & Deaf	GEO	Geography — Systematic
EIA	Educational: Industrial Arts	GER	German Language
EIN	Engineering: Industrial	GET	German Literature in Translation
EIV	Education: Industrial/Vocational	GEW	German Literature (Writings)
ELD	Education: Specific Learning Disabilities	GEY	Gerontology
ELR	Engineering: Electrical Lab & Related Areas	GFD	Geophysical Fluid Dynamics
EMA	Engineering: Material	GLY	Geology
EMC	Engineering: Mechanical-Chemical	GMS	Graduate Medical Sciences
EME	Education: Technology & Media	GRE	Greek Language
EML	Engineering: Mechanical	GRW	Greek Literature (Writings)
EMR	Education: Mental Retardation	HCA	Health Care Administration
EMT	Emergency Medical Technology	HEB	Hebrew
ENC	English Composition	HEE	Home Economics Education
ENG	English — General	HES	Health Education & Safety
ENL	English Literature	HFT	Hospitality, Food Tourism
ENU	Engineering: Nuclear	HHH	Housing & Home Design
ENV	Engineering: Environmental	HIS	History — General
ENY	Entomology	HLP	Health, Leisure & Physical Education
EOC	Engineering: Ocean	HME	Home Management & Equipment
EPH	Education: Physical & Multiple Handicapped	HOE	Home Economics — General
ESE	Education: Secondary	HOS	Horticultural Sciences
ESI	Engineering Systems — Industrial	HSC	Health Science
ESL	English as a Second Language	HUM	Humanities
ETC	Engineering Tech: Civil	HUN	Human Nutrition
ETD	Engineering Tech: Drafting	HUS	Human Services
ETE	Engineering Tech: Electrical	ICE	Icelandic Language
ETG	Engineering Tech: General	ICT	Icelandic Literature in Translation
ETI	Engineering Tech: Industrial	ICW	Icelandic Literature (Writings)
ETM	Engineering Tech: Mechanical	IDS	Interdisciplinary Studies
ETN	Electroencephalographic Tech	IEA	Industrial Education — Applied
EUH	European History	IND	Interior Design
EUS	European Studies	INP	Industrial & Applied Psychology
EVI	Education: Visually Impaired-Blind	INR	International Relations
EVR	Environmental Studies	ISC	Interdisciplinary Natural Science
EVS	Environmental Science	ITA	Italian Language
EVT	Education: Vocational/Technical	ITT	Italian Literature in Translation
EXP	Experimental Psychology	ITW	Italian Literature (Writings)
FAD	Family Development	JAP	Japanese Language
FAM	Fashion Modeling	JAW	Japanese Literature (Writings)
FFP	Fire Fighting & Protection	JOU	Journalism
FIL	Film	LAA	Landscape Architecture
FIN	Finance	LAE	Language Arts & English Education
FLE	Foreign Language Education	LAH	Latin American History
FNR	Forestry & Natural Resources	LAS	Latin American Studies
FOL	Foreign & Biblical Languages	LAT	Latin (Language Study)
FOR	Forestry		
FOS	Food Science		

# Statewide Course Numbering Directory of Prefixes

## 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
MAD	Mathematics — Discrete
MAE	Mathematics Education
MAF	Marriage and Family
MAG	Mechanized Agriculture
MAN	Management
MAP	Mathematics — Applied
MAR	Marketing
MAS	Mathematics: Algebraic Structures
MAT	Mathematics
MCB	Microbiology
MEA	Medical Assisting Technology
MEL	Medicine Electives
MER	Mental Retardation
MET	Meteorology
MGF	Mathematics: General & Finite
MHF	Mathematics: History & Foundations
MHT	Mental Health Technology
MIS	Military Science
MKA	Marketing Applications
MLS	Medical Laboratory Science
MMC	Mass Media Communication
MOB	Molecular Biophysics
MRE	Medical Records
MTB	Mathematics: Technology & Business
MTG	Mathematics: Topology & Geometry
MTR	Metal Trades
MUC	Music: Composition
MUE	Music: Education
MUG	Music: Conduction
MUH	Music: History/Musicology
MUL	Music: Music Literature
MUM	Music: Commercial
MUN	Music: Musical Ensembles
MUO	Music: Opera/Musical Theatre
MUR	Music: Church Music
MUS	Music
MUT	Music: Theory
MUY	Music: Therapy
MVB	Music: Applied Brasses
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	Oceanography: Biological
OCC	Oceanography: Chemical
OCE	Oceanography
OCG	Oceanography: Geological
OCF	Oceanography: Physical
ODT	Opticianry Dispensing Technology
OMT	Oceanography: Marine Technology
ORH	Ornamental Horticulture
ORI	Oral Interpretation
ORT	Operating Room Technology
OTH	Occupational Therapy
OTS	Optometric Technology Science
PAD	Public Administration
PAS	Physician's Assistant
PAZ	Parks & Zoos
PCB	Process Cell Biology
PCO	Psychology for Counseling
PEL	Physical Education Acts (Gen)- Object Centr., Land
PEM	Physical Education Acts (Gen)- Perfm Centr., Land
PEN	Physical Education Acts (Gen)- Water, Snow, Ice
PEO	Physical Education Acts (Profnl) Object Centr., Land
PEP	Physical Education Acts (Profnl) Perfm Centr., Land
PEQ	Physical Education Acts (Profnl) Water, Snow, Ice
PET	Physical Education Theory
PHA	Pharmacy
PHH	Philosophy, History of
PHI	Philosophy
PHM	Philosophy of Man & Society
PHP	Philosophers & Schools
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

<b>PREFIX</b>	<b>SUBJECT AREAS</b>
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	Russian Literature (Writings)
SAN	Sanskrit
SCE	Science Education
SCW	Serbo-Croatian Literature (Writings)
SEC	Serbo-Croatian Language
SED	Speech Education
SES	Secretarial Studies
SLL	Slavic Languages
SLW	Slavic Literature (Writings)
SOC	Sociology
SON	Sonography: Diagnostic Ultrasound
SOP	Social Psychology
SOS	Soil Science
SOW	Social Work
SPA	Speech Pathology & Audiology
SPC	Speech Communication
SPN	Spanish Language
SPS	School Psychology
SPT	Spanish Literature in Translation
SPW	Spanish Literature (Writings)

<b>PREFIX</b>	<b>SUBJECT AREAS</b>
SSE	Social Studies Education
SSI	Social Sciences — Interdisciplinary
STA	Statistics
STD	Student Development
SWA	Swahili Language
SWT	Swahili Literature in Translation
THE	Theatre
TPA	Theatre Production & Administration
TPP	Theatre Performance & Performance Training
TRA	Transportation
TSL	Teaching English as a Second Language
TTE	Transportation & Traffic Engineering
URP	Urban & Regional Planning
URS	Urban & Regional Studies
VEC	Vegetable Crops
VEM	Veterinary Medicine
VES	Veterinary Science
VIC	Visual Communication
WIS	Wildlife Science
WOH	World History
WST	Women's Studies
ZOO	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 supplementary publications available from the office of Student Academic Services.

Cross Reference — FIU To Statewide

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
ACC 300	ACC 3300	ACC 625	ACC 6559	ANT 421	ANT 4332
ACC 301	ACC 3882	ACC 626	ACC 6582	ANT 422	ANT 4343
ACC 401	ACC 4101	ACC 630	ACC 6822	ANT 423	ANT 4315
ACC 402	ACC 4121	ACC 631	ACC 6832	ANT 424	ANT 4314
ACC 403	ACC 4201	ACC 693	ACC 6907	ANT 425	ANT 4211
ACC 405	ACC 4301	ACC 695	ACC 6910	ANT 426	ANT 4352
ACC 406	ACC 4501	ACC 697	ACC 6935	ANT 427	ANT 4360
ACC 407	ACC 4601	AIS 301C	AFR 3201C	ANT 428	ANT 4361
ACC 408	ACC 4731	AIS 302C	AFR 3210C	ANT 429	ANT 4328
ACC 412	ACC 4648	AIS 401C	AFR 4220C	ANT 430C	ANT 4324
ACC 413	ACC 4548	AIS 402C	AFR 4230C	ANT 431C	ANT 4930
ACC 414C	ACC 4522	ANT 300C	SSI 3010	ANT 432C	ANT 4930
ACC 417	ACC 4803	ANT 301	ANT 3000	ANT 433C	ANT 4930
ACC 419	ACC 4271	ANT 302	ANT 3500	ANT 434C	ANT 4930
ACC 424	ACC 4248	ANT 303C	ANT 3144	ANT 435C	ANT 4930
ACC 425	ACC 4348	ANT 304	ANT 3004	ANT 437C	ANT 4433
ACC 493	ACC 4905	ANT 305	ANT 3512	ANT 438C	ANT 4312
ACC 497	ACC 4930	ANT 311C	ANT 3402	ANT 439C	ANT 4454
ACC 501	ACC 5311	ANT 313C	ANT 3262	ANT 440C	ANT 4306
ACC 502	ACC 5111	ANT 325	ANT 3422	ANT 444C	ANT 4750
ACC 503	ACC 5131	ANT 326	ANT 3241	ANT 446	ANT 4930
ACC 506	ACC 5865	ANT 327	ANT 3251	ANT 450C	ANT 4405
ACC 508	ACC 5734	ANT 328	ANT 3476	ANT 455C	ANT 4469
ACC 512	ACC 5611	ANT 335	ANT 3442	ANT 456C	ANT 4460
ACC 513	ACC 5511	ANT 337	ANT 3432	ANT 461C	ANT 4944
ACC 517	ACC 5211	ANT 338	LIN 3642	ANT 466	ANT 4242
ACC 602	ACC 6735	ANT 355	ANT 3462	ANT 467C	ANT 4243
ACC 603	ACC 6745	ANT 356C	ANT 3542	ANT 469C	ANT 4406
ACC 606	ACC 6411	ANT 365	ANT 3403	ANT 470C	ANT 4930
ACC 607	ACC 6391	ANT 366	ANT 3302	ANT 471C	ANT 4930
ACC 608C	ACC 6845	ANT 370C	ANT 3435	ANT 472C	ANT 4930
ACC 610	ACC 6291	ANT 385	ANT 3425	ANT 473C	ANT 4930
ACC 611	ACC 6932	ANT 386C	ANT 3733	ANT 474C	ANT 4930
ACC 612	ACC 6651	ANT 400	ANT 4705	ANT 475	ANT 4305
ACC 613	ACC 6512	ANT 401	ANT 4723	ANT 485	ANT 4474
ACC 614	ACC 6531	ANT 403	ANT 4451	ANT 491	ANT 4907
ACC 615	ACC 6553	ANT 405C	ANT 4273	ANT 492	ANT 4908
ACC 616	ACC 6275	ANT 411	ANT 4452	ANT 501	ANT 5937
ACC 620	ACC 6554	ANT 412	ANT 4453	ANT 522	ANT 5726
ACC 621	ACC 6555	ANT 413C	ANT 3263	ANT 555	ANT 5466
ACC 622	ACC 6556	ANT 415	ANT 4007	ANT 557	ANT 5468
ACC 623	ACC 6557	ANT 418C	ANT 4224	ANT 591	ANT 5908
ACC 624	ACC 6558	ANT 420	ANT 4340	ANT 592	ANT 5915

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
ARH 416C	ARH 4552	BSC 342	PCB 3510C	BSC 570L	BOT 5665L
ARH 435C	ARH 4170	BSC 348	ZOO 3513C	BSC 590C	BSC 5931
ARH 455C	ARH 4301	BSC 349	PCB 3873C	BSC 601C	BCH 6506
ARH 466C	ARH 4431	BSC 350C	PCB 3703	BSC 665C	BOT 6536
ARH 467	ARH 4610	BSC 350L	PCB 3703L	BSC 680L	BSC 6916
ARH 475	ARH 4470	BSC 351C	PCB 3704	BUA 300C	ACC 3300
ARH 476C	ARH 4410	BSC 351L	PCB 3704L	BUA 302	MAN 3503
ARH 477C	ARH 4800	BSC 355C	ZOO 3733	BUA 303	MAR 3023
ARH 478	ARH 4931	BSC 355D	ZOO 3733L	BUA 305	QMB 3150
ARH 485	ARH 4905	BSC 355L	ZOO 3733L	BUA 306	CIS 3000
ARH 495	ARH 4910	BSC 356C	ZOO 3734	BUA 307	ACC 3303
ARH 516	ARH 5555	BSC 356D	ZOO 3734L	BUA 309	MAN 3010
ARH 535	ARH 5172	BSC 356L	ZOO 3734L	BUA 311C	ECO 3202
ARH 555	ARH 5303	BSC 357C	ZOO 3743	BUA 314	MAN 3701
ARH 566	ARH 5432	BSC 357L	ZOO 3743L	BUA 408	MAN 4720
ARH 567	ARH 5615	BSC 360C	PCB 3043	BUA 414	MAN 4701
ARH 576	ARH 5412	BSC 362C	BOT 3353	BUA 494	MAR 4254
ARH 577	ARH 5812	BSC 362L	BOT 3353L	BUA 496	MAN 4722
ARH 585	ARH 5907	BSC 364C	BOT 3823		
ARH 595	ARH 5913	BSC 365C	BOT 3503	CHE 301	CHM 3210
ASC 301	ANT 3086	BSC 372C	PCB 3702	CHE 301L	CHM 3210L
ASC 302	SOC 3610	BSC 372L	PCB 3702L	CHE 302	CHM 3211
ASC 303	SOC 3500	BSC 373	ZOO 3731C	CHE 302L	CHM 3211L
ASC 304	SSI 3303	BSC 373L	ZOO 3731L	CHE 305	CHM 3045
		BSC 374	PCB 3703C	CHE 305L	CHM 3045L
BEP 401	MAN 4731	BSC 376C	PCB 3233	CHE 306	CHM 3046
BEP 402C	MAN 4711	BSC 380	BSC 3913	CHE 306L	CHM 3046L
BEP 403	MAN 4741	BSC 381C	BSC 3933	CHE 308	CHM 3030
BEP 404C	SSI 4125	BSC 401C	PCB 4254	CHE 308L	CHM 3030L
BEP 405C	IDS 4154	BSC 402C	PCB 4254L	CHE 309	CHM 3200
BEP 425	PUR 4000	BSC 403C	PCB 4024	CHE 309L	CHM 3200L
BEP 426	PUR 4800	BSC 420	ZOO 5334	CHE 311	CHM 3400
BEP 427	PUR 4934	BSC 423C	PCB 4754	CHE 311L	CHM 3400L
BEP 430C	MAN 4130	BSC 423L	PCB 4754L	CHE 312	CHM 3120
BEP 493C	MAN 4905	BSC 425C	PCB 4724	CHE 312L	CHM 3120L
BEP 497C	MAN 4934	BSC 425L	PCB 4724L	CHE 321	CHM 3410
BEP 498C	MAN 4910	BSC 427C	PCB 4725	CHE 322	CHM 3411
BSC 300C	BSC 3023	BSC 427L	PCB 4725L	CHE 323	CHM 3412
BSC 301D	BCH 3930	BSC 451C	PCB 4701	CHE 325L	CHM 3410L
BSC 301L	BCH 3033L	BSC 480	BSC 4914	CHE 326L	CHM 3411L
BSC 302C	PCB 3023	BSC 481	BSC 3934	CHE 327L	CHM 3412L
BSC 302L	PCB 3023L	BSC 489C	ZOO 4543	CHE 332L	CHM 4090L
BSC 305C	BSC 3033	BSC 490	BSC 5931	CHE 403	CHM 4220
BSC 306C	APB 3253	BSC 501	ZOO 5266C	CHE 404	CHM 4300
BSC 308	OCB 3010	BSC 501L	ZOO 5266L	CHE 405	CHM 4490
BSC 310L	MCB 3013L	BSC 502C	APB 5933	CHE 406	CHM 4460
BSC 320C	BOT 3663	BSC 504C	PCB 5205	CHE 409L	ISC 4041
BSC 320L	BOT 3663L	BSC 507C	BCH 5315	CHE 412	CHM 4130
BSC 329C	BOT 3935	BSC 508C	BCH 5213	CHE 412L	CHM 4130L
BSC 329L	BOT 3935	BSC 509C	BCH 5345	CHE 427L	CHM 4230L
BSC 331C	ZOO 3203	BSC 511	MCB 5505	CHE 428L	CHM 4320L
BSC 331L	ZOO 3203L	BSC 511L	MCB 5505L	CHE 431	CHM 4610
BSC 332C	ENY 3004	BSC 521L	PCB 5615C	CHE 436	CHS 4110
BSC 334C	ZOO 3423	BSC 542C	PCB 5259	CHE 437L	CHS 4100L
BSC 335C	ZOO 3433	BSC 545C	BOT 5575	CHE 481	CHM 5380
BSC 336C	ZOO 3603	BSC 545L	BOT 5575L	CHE 481	CHM 4310
BSC 336L	ZOO 3603L	BSC 550C	ZOO 5745	CHE 483	CHM 4580
BSC 337C	ZOO 3553	BSC 552C	PCB 5835C	CHE 485	CHM 4680
BSC 338C	ZOO 3753	BSC 552L	PCB 5835L	CHE 487	CHM 4180
BSC 338L	ZOO 3753L	BSC 560	OCB 5635	CHE 491L	CHM 4910L
BSC 341	PCB 3513L	BSC 560L	PCB 5316L	CHE 492L	CHM 4911L
BSC 341C	PCB 3513	BSC 570C	BOT 5665	CHE 493L	CHM 4912L

Cross Reference — FIU To Statewide

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
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
CLT 335	CTE 3310	CRJ 300	CCJ 3020	CSN 326	BCN 3762
CLT 337	CTE 3401	CRJ 301	CCJ 3600	CSN 328	ARC 3586
CLT 401	CTE 4821	CRJ 302	CCJ 3100	CSN 329	HHH 3151
CLT 402	CTE 4890	CRJ 303	CCJ 3290	CSN 330	BCN 3703
CLT 403	CTE 4827	CRJ 304	CCJ 3270	CSN 331	BCN 3640
CLT 425	CTE 4741	CRJ 306C	CCJ 3300	CSN 332	BCN 3740
CLT 435	CTE 4340	CRJ 307C	CCJ 3700	CSN 340	IND 3020
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
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
CLT 538	CTE 5355	CRJ 403	CCJ 4400	CSN 370	ARC 3210
CLT 595	CTE 5905	CRJ 404	CCJ 4630	CSN 372C	BCN 3706
COE 301	HUM 3949	CRJ 406	CCJ 4130	CSN 373	IND 3200
COE 303	SSI 3949	CRJ 408C	CCJ 4281	CSN 375	ARC 3450
COE 311	EVR 3949	CRJ 410	CCJ 4280	CSN 376	ARC 3484C
COE 325	ACC 3949	CRJ 411	CCJ 4661	CSN 377C	BCN 3761
COE 326	FIN 3949	CRJ 412	CCJ 4662	CSN 380C	BCN 3257C
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
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	HHH 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

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
CSN 479	ARC 4039C	EAD 510	ADE 5195	EAS 421L	GLY 4401L
CSN 480	ARC 4485C	EAD 519	ADE 5180	EAS 430	GEO 4114C
CSN 482	ARC 4270	EAD 520	ADE 5383	EAS 432	GLY 4730
CSN 495	ETG 4905	EAD 525	ADE 5925	EAS 432L	GLY 4730L
CSN 497	ETG 4930	EAD 526	ADE 5935	EAS 440	GLY 4240
CSN 512	ETC 5514	EAD 527	ADE 5935	EAS 452C	MET 4301
CSN 513C	ETC 5507C	EAD 528	ADE 5935	EAS 461	GLY 4650
CSN 556	ETC 5470	EAD 529	ADE 5935	EAS 461L	GLY 4650L
CSN 557	ETC 5422C	EAD 530	ADE 5935	EAS 471	GLY 4555
CSN 564	ETC 5950	EAD 531	ADE 5935	EAS 471L	GLY 4555L
CSN 565C	CAP 5211	EAD 532	ADE 5935	EAS 481	GLY 4791
CSN 570	ARC 5916	EAD 533	ADE 5935	EAS 491L	ISC 4911
CSN 572C	BCN 5022	EAD 534	ADE 5935	EAS 492L	ISC 4911
		EAD 535	ADE 5935	EAS 495	GLY 4190
DAN 315R	DAA 3820	EAD 536	ADE 5935	EAS 496	GLY 4792
DAN 415R	DAA 4821	EAD 537	ADE 5935	EAS 501	GLY 5793
DAN 416	TPP 4531	EAD 538	ADE 5935	EAS 520	GLY 5816
DIN 300	DIE 3005	EAD 539	ADE 5935	EAS 520L	GLY 3816L
DIN 301	HUN 3122	EAD 540	ADE 5935	EAS 561	GLY 5620
DIN 305	FOS 3004	EAD 541	ADE 5935	ECE 401	EEC 4301
DIN 309L	FSS 3316	EAD 542	ADE 5935	ECE 402	EEC 4203
DIN 310	FSS 3215	EAD 543	ADE 5935	ECE 403	EEC 4611
DIN 320	DIE 3125	EAD 544	ADE 5935	ECE 595	EEC 5906
DIN 321	DIE 3175	EAD 545	ADE 5935	ECE 606	EEC 6205
DIN 330	DIE 3245	EAD 546	ADE 5935	ECE 607	SSE 6305
DIN 331	DIE 3275	EAD 547	ADE 5935	ECE 608	LAE 6305
DIN 401	HUN 4241	EAD 548	ADE 5935	ECE 609	RED 6305
DIN 405	HUN 4410	EAD 549	ADE 5935	ECE 615	MAE 6305
DIN 410	FOS 4041	EAD 550	ADE 5935	ECE 616	SCE 6306
DIN 415	FOS 4021	EAD 595	ADE 5906	ECE 617	MUE 6305
DIN 440	DIE 4317	EAD 596	ADE 5945	ECE 618	ARE 6304
DIN 441	DIE 4365	EAD 697	ADE 6930	ECE 695	EEC 6948
DIN 442	DIE 4377	EAR 405	ARE 4316	ECE 696	EEC 6932
DIN 450	DIE 4435	EAR 416	ARE 4341	ECE 697	EEC 6926
DIN 450L	DIE 4436	EAR 425	ARE 4940	ECO 301	ECO 3003
DIN 451	DIE 4536	EAR 505	ARE 5251	ECO 304	ECS 3402
DIN 452	DIE 4296	EAR 595C	ARE 5905	ECO 305	ECO 3040
DIN 453	DIE 4195	EAR 605	ARE 6140	ECO 306	ECO 3223
DIN 490	DIE 4506	EAR 607	ARE 6262	ECO 307	ECO 3101
DIN 500	HUN 5890	EAR 609	ARE 6706	ECO 308	ECO 3203
DIN 501	HUN 5123	EAR 697C	ARE 6926	ECO 311	ECO 3432
DIN 503	HUN 5611	EAS 301L	GLY 3850L	ECO 312	ECO 3303
DIN 505	HUN 5621	EAS 302	GLY 3157	ECO 313	ECS 3003
DIN 520	HUN 5245	EAS 305	GLY 3850	ECO 316	ECS 3440
DIN 530	DIE 5247	EAS 305C	GLY 3850	ECO 319	ECP 3303
DIN 560	DIE 5926	EAS 309C	AST 3100	ECO 320	ECP 3613
DIN 600C	DIE 6937	EAS 310C	AST 3213	ECO 321	ECP 3623
DIN 601	HUN 6408	EAS 311	GEO 3200C	ECO 328	ECP 3123
DIN 610	FOS 6044	EAS 311L	GEO 3122L	ECO 329	ECP 3144
DIN 620	DIE 6128	EAS 312C	GLY 3200	ECO 403	ECS 4430
DIN 640	HUN 6521	EAS 312L	GLY 3200L	ECO 408	ECS 4432
DIN 650	DIE 6907	EAS 313	GLY 3220	ECO 409	ECS 4433
DIN 690	HUN 6247	EAS 313L	GLY 3220L	ECO 410	ECS 4013
DIN 691	DIE 6568	EAS 320C	GEO 3510	ECO 411	ECS 4024
DIN 692	HUN 6811	EAS 331	OCE 3014	ECO 412	ECO 4307
DIN 693	DIE 6578	EAS 401C	EVS 4164	ECO 413	ECS 4014
DIN 695	DIE 6908	EAS 401L	EVS 4164L	ECO 414	ECS 4044
DIN 699C	DIE 6971	EAS 410C	MET 4701	ECO 415	ECO 4632
		EAS 412	GLY 4450	ECO 416	ECO 4622
EAD 507	ADE 5081	EAS 414C	GLY 4300	ECO 417	ECO 4623
EAD 508	ADE 5260	EAS 414L	GLY 4300L	ECO 418	ECO 4603
EAD 509	ADE 5385	EAS 421C	GLY 4401	ECO 421	ECP 4314

Cross Reference — FIU To Statewide

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
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
ECO 439	ECO 4713	EDU 312	EDG 3322	EEL 608	LAE 6355
ECO 440	ECO 4733	EDU 505	EDF 5287	EEL 609	RED 6155
ECO 441	ECP 4013	EDU 506	EDG 5325	EEL 616	SCE 6315
ECO 444	ECP 4003	EDU 507	EDF 5481	EEL 617	MUE 6316
ECO 454	ECS 4403	EDU 508	EDF 5955	EEL 618	ARE 6315
ECO 455	ECS 4403	EDU 509	EDF 5710	EEL 695	EDE 6948
ECO 456	ECS 4404	EDU 510	EDF 5724	EEL 696	EDE 6930
ECO 460	ECO 4902	EDU 514	EDF 5720	EEL 697	EDE 6925
ECO 461C	ECO 4902	EDU 515	EDF 5780	EET 300C	ETE 3030
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
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
ECO 562C	ECO 5906	EEC 315	EEX 3221	EET 329	ETE 3124C
ECO 563C	ECO 5906	EEC 316	EEX 3202	EET 340	ETE 3421C
ECO 606	ECP 6704	EEC 405	EEX 4241	EET 342	ETE 3422
ECO 626	ECO 6236	EEC 406	EEX 4242C	EET 415	ETE 4565C
ECO 660	ECO 6938	EEC 407	EMR 4360	EET 420	ETE 4324C
ECO 665	ECO 6115	EEC 408	ELD 4322C	EET 422	ETE 4325C
ECO 666	ECO 6938	EEC 409	EED 4227C	EET 425C	ETE 4567C
EDA 605	EDA 6061	EEC 411	EEX 4601	EET 428	ETE 4123C
EDA 606C	EDA 6510	EEC 412	EEX 4611	EET 430	ETE 4161C
EDA 607C	EDA 6530	EEC 425	EEX 4861	EET 440	ETE 4426C
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
EDA 697	EDA 6928	EEC 615	EMR 6852	EIA 605	EIA 6931
EDA 698	EDA 6905	EEC 616	ELD 6323	EMU 406C	MUE 4341
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	EED 698C	EEX 6906	EMU 697C	MUE 6925
EDS 409	SSE 4384C	EEL 307C	HLP 3013	ENG 300	LIT 3510
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

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
ENG 306	LIT 3510	ENG 454C	ENL 4540	EUS 310C	EVS 3360
ENG 307	LIT 3510	ENG 460	LIN 4400	EUS 330C	ETC 3570
ENG 308	LIT 3510	ENG 461C	ENG 4555	EUS 340C	URP 3000
ENG 309	LIT 3510	ENG 462C	ENG 4141	EUS 348C	URP 3030
ENG 310	LIT 3510	ENG 498	ENG 4906	EUS 350C	EVS 3215C
ENG 311	ENC 3453	ENG 499	LIT 4930	EUS 352C	EVS 3264C
ENG 312	ENC 3353	ENG 500	AML 5212	EUS 356C	EVS 3219C
ENG 314	ENG 3137	ENG 501	AML 5212	EUS 430C	ETC 4560
ENG 315	ENG 3070	ENG 502	AML 5212	EUS 445C	URP 4021
ENG 320	ENG 3500	ENG 505	AML 5212	EUS 449C	URP 4011
ENG 360	ENG 3101	ENG 506	AML 5212	EUS 450C	EVS 4233C
ENG 361	ENG 3101	ENG 507	AML 5212	EUS 451C	EVS 4234C
ENG 362	ENG 3101	ENG 508	AML 5212	EUS 455C	EVS 4463C
ENG 363	ENG 3101	ENG 509	AML 5212	EUS 495C	EVS 4905
ENG 364	ENG 3101	ENG 510	AML 5212	EUS 497C	EVS 4930
ENG 365	ENG 3101	ENG 511	ENL 5220	EUS 510C	EVS 5369
ENG 366	ENG 3101	ENG 512	ENL 5220	EUS 512C	EVS 5361
ENG 367	ENG 3101	ENG 513	ENL 5220	EUS 513C	EVS 5362
ENG 368	ENG 3101	ENG 514	ENL 5220	EUS 518C	EVS 5741
ENG 369	ENG 3101	ENG 515	ENL 5220	EUS 520C	EVS 5421C
ENG 370	ENG 3101	ENG 516	ENL 5220	EUS 522C	EVS 5682
ENG 380	LIT 3333	ENG 517	ENL 5220	EUS 524C	EVS 5425C
ENG 400	ENG 4103	ENG 518	ENL 5220	EUS 525C	EVS 5426C
ENG 401	ENG 4103	ENG 519	ENL 5220	EUS 530C	ETC 5571
ENG 402	ENG 4103	ENG 520	ENL 5220	EUS 542C	ETC 5572
ENG 403	ENG 4103	ENG 541	LIT 5542	EUS 550C	EVS 5242
ENG 404	ENG 4103	ENG 542	LIT 5542	EUS 552C	EVS 5235C
ENG 405	ENG 4103	ENG 543	LIT 5542	EUS 554C	EVS 5218
ENG 406	ENG 4103	ENG 544	LIT 5542	EUS 556C	EVS 5268C
ENG 407	ENG 4103	ENG 545	LIT 5542	EUS 557C	OCB 5702
ENG 408	ENG 4103	ENG 546	LIT 5542	EUS 558	EVS 5261
ENG 409	ENG 4103	ENG 547	LIT 5542	EUS 558C	EVS 5266
ENG 410	ENG 4103	ENG 548	LIT 5542	EUS 559	EVS 5267
ENG 415	CRW 4340	ENG 549	LIT 5542	EUS 559C	EVS 5267
ENG 416	CRW 4240	ENG 550	LIT 5542	EUS 602	URP 6821
ENG 420	ENG 4134	ENG 553	ENG 5517	EUS 604	EVS 6422
ENG 421	ENC 4522	ENG 557	ENG 5816	EUS 604C	EVS 6422
ENG 422	LIT 4349	ENG 598	ENG 5907	EUS 614	EVS 6424
ENG 423	ENG 4574	ENG 599	LIT 5934	EUS 614C	EVS 6424
ENG 431	ENL 4138	ENG 698	ENG 6909	EUS 615C	OCB 6631
ENG 432	ENL 4139	ENG 699	LIT 6934	EUS 620C	EVS 6603C
ENG 433	ENL 4137	ENT 495	ETG 4905	EUS 642C	URP 6423
ENG 435	AML 4144	ENT 497	ETG 4930	EUS 649C	EVS 6050C
ENG 436	AML 4144	EPR 320C	EVS 3601C	EUS 650C	EVS 6051C
ENG 437	AML 4144	EPR 325C	EVS 3420C	EUS 652C	EVS 6052C
ENG 438	AML 4144	EPR 327C	EVS 3428	EUS 654C	EVS 6053C
ENG 439	AML 4144	EPR 545C	URP 5425	EUS 655C	EVS 6269C
ENG 440	AML 4144	ERE 503	RED 5447	EUS 656C	EVS 6054
ENG 440	LIT 4290	ERE 595	RED 5908	EUS 690C	EVS 6939
ENG 441	LIT 4290	ERE 601	RED 6546	EUS 699C	EVS 6970
ENG 441C	LIT 4203	ERE 602	RED 6515	EVO 305	EVT 3065
ENG 442	LIT 4290	ERE 606	RED 6337	EVO 306C	EVT 3165C
ENG 442C	LIT 4203	ERE 625	RED 6747	EVO 308C	EVT 3815C
ENG 443	LIT 4290	ERE 626	RED 6805	EVO 406C	EVT 4941
ENG 443C	LIT 4203	ERE 628	RED 6247	EVO 407	EVT 4949
ENG 444	LIT 4290	ERE 629	RED 6845	EVO 408C	EVT 4280
ENG 444C	LIT 4203	ERE 697	RED 6925	EVO 409C	EVT 4365C
ENG 445	LIT 4290	ESL 310	ESL 3361	EVO 410	EVT 4668
ENG 450	LIT 4401	ESL 311	ESL 4301	EVO 412C	EVT 4990C
ENG 451C	ENL 4540	ETS 300C	EVS 3440	EVO 419C	EEX 4882L
ENG 452C	ENL 4540	ETS 595C	EVS 5905	EVO 425C	EVT 4941
ENG 453C	ENL 4540	ETS 597C	EVS 5930	EVO 502	EVT 5389

Cross Reference — FIU To Statewide

Cross Reference — FIU To Statewide

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
EVO 504	EVT 5460	FIA 437C	ART 4151C	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 4114C	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 5341C	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
EVR 301	EVR 3011	FIA 555	ART 5620C	FRE 357	FRW 3584
EVR 302	EVR 3012	FIA 565	ART 5125C	FRE 359	FRW 3520
EVR 303	EVR 3013	FIA 575	ART 5660C	FRE 360	FRE 3500
EVR 312	EVR 3931	FIA 585	ART 5907	FRE 365C	FRT 3110
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 412C	MET 4701	FIN 310	FIN3100	FRE 399	FRE 3270
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
EVR 512	EVR 5936	FIN 425	FIN 4502	FRE 455	FRE 4935
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
EVR 591	EVR 5907	FIN 493	FIN 4904	FRE 476C	FRE 4800
		FIN 497	FIN 4934	FRE 478C	FLE 4823
FCD 301	CHD 3220	FIN 505	FIN 5406	FRE 479C	FRE 4562
FCD 305C	FAD 3232	FIN 507	FIN 5314	FRE 488	FRE 4012
FCD 401	CHD 4230	FIN 508	FIN 5515	FRE 497	FRW 4930
FCD 405	FAD 4230	FIN 515	FIN 5305	FRE 498	FRW 4905
FCD 501	CHD 5264	FIN 515	FIN 5714	FRE 499	FRE 4470
FCD 505	FAD 5260	FIN 516	FIN 5326	FRE 501	FRE 5060
FCD 515C	FAD 5255	FIN 517	FIN 5223	FRE 502	FRE 5061
FCD 595	FAD 5450	FIN 520	FIN 5345	FRE 505	FRE 5730
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
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 3510C	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

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
GER 501C	GER 5060	HIS 326	HIS 3244	HIS 474	LAH 4932
GER 502C	GER 5061	HIS 327	AMH 3130	HIS 480	LAH 4474
		HIS 328	AMH 3170	HIS 497C	HIS 4930
HCM 413	HCA 4710	HIS 329	AMH 3354	HIS 498C	HIS 4930
HCM 414	HCA 4111	HIS 330	AMH 3355	HIS 499	HIS 4908
HCM 418	HCA 4203	HIS 331	AMH 3251	HIS 500	HIS 5289
HCM 419	HCA 4711	HIS 332	AMH 3270	HIS 501	HIS 5289
HCM 517	HCA 5505	HIS 333	AMH 3275	HIS 502	HIS 5289
HCM 523	HCA 5135	HIS 334	AMH 3500	HIS 503	HIS 5289
HCM 624	HCA 6136	HIS 336	WOH 3244	HIS 504	HIS 5289
HCM 631C	HCA 6431	HIS 337	EUH 3601	HIS 505	HIS 5289
HCM 651	HCA 6510	HIS 338	EUH 3611	HIS 506	HIS 5289
HCM 670	HCA 6301	HIS 339	EUH 3203	HIS 507	HIS 5289
HCM 671	HCA 6302	HIS 340	EUH 3570	HIS 508	HIS 5289
HCM 685	HCA 6850	HIS 342	WOH 3283	HIS 520	HIS 5910
HCM 689	HCA 6101	HIS 343	WOH 3280	HIS 597	HIS 5930
HCM 696	HCA 6811	HIS 344	EUH 3576	HIS 598	HIS 5930
HEB 301C	HEB 3110	HIS 345	AMH 3331	HIS 599C	HIS 5908
HEB 302C	HEB 3111	HIS 346	AMH 3332	HME 495	HME 4942
HEB 303C	HEB 3112	HIS 347	AMH 3317	HMF 301	COA 3130
HEB 304	HEB 3200	HIS 348	AMH 3560	HMF 306	COA 3410
HEB 305	HEB 3201	HIS 349	AMH 3420	HMF 405	HME 4210
HED 405	HES 4303	HIS 350	HIS 3473	HMF 406	HME 4230
HED 407	HES 4001	HIS 351	AMH 3428	HMF 407	COA 4440
HED 411	HES 4160	HIS 352	LAH 3482	HMF 410	COA 4460
HED 425	HES 4940	HIS 353	LAH 3410	HMF 495	COA 4942
HED 505	HES 5205	HIS 397C	HIS 3930	HMF 495C	HME 4940
HED 506	HES 5327	HIS 398C	HIS 3930	HMF 506	EEX 5771
HED 507	HES 5326	HIS 402	EUH 4121	HMF 507C	HME 5225
HED 595	HES 5908	HIS 403	EUH 4123	HMF 510	COA 5450
HED 695	HES 6943	HIS 422	EUH 4200	HMF 596	HME 5905
HED 697	HES 6928	HIS 423	EUH 4201	HRM 301	HFT 3403
HEE 305	HEE 3302	HIS 428	EUH 4205	HRM 309	FSS 3232
HEE 405	HEE 4104	HIS 429	EUH 4206	HRM 310	FSS 3221
HEE 406	HEE 4944	HIS 431	EUH 4286	HRM 311	FSS 3234
HEE 425	HEE 4941	HIS 432	EUH 4286	HRM 312	COA 3411
HEE 495C	HOE 4940	HIS 433	EUH 4286	HRM 313	FSS 3252
HEE 505	HEE 5335	HIS 434	EUH 4286	HRM 314	FSS 3241
HEE 506C	HEE 5365	HIS 440	AMH 4110	HRM 316	HFT 3263
HEE 507C	HEE 5360	HIS 441	AMH 4150	HRM 317	FSS 3272
HEE 508C	HEE 5362	HIS 442	AMH 4025	HRM 318	FSS 3243
HEE 509C	HEE 5363	HIS 443	AMH 4030	HRM 320	HFT 3453
HEE 515C	HEE 5364	HIS 451	AMH 4930	HRM 321	HFT 3434
HEE 516C	HEE 5361	HIS 452	AMH 4930	HRM 325	HFT 3603
HEE 551	HEE 6551	HIS 453	AMH 4930	HRM 326	HFT 3000
HEE 595C	HEE 5905	HIS 454	AMH 4930	HRM 328	HFT 3941
HEE 596C	HEE 5927	HIS 455	AMH 4930	HRM 329	HFT 3945
HEE 605	HEE 6915	HIS 456	AMH 4930	HRM 330	HFT 3203
HEE 606	HEE 6126	HIS 457	AMH 4930	HRM 331	HFT 3503
HEE 607	HEE 6943	HIS 458	AMH 4930	HRM 332	HFT 3514
HEE 696	HEE 6937	HIS 459	AMH 4930	HRM 333	HFT 3524
HIS 301	HIS 3001	HIS 461	LAH 4132	HRM 339	HFT 3313
HIS 302	HIS 3308	HIS 462	LAH 4133	HRM 340	HFT 3323
HIS 303	EDF 3521	HIS 463	LAH 4201	HRM 341	HFT 3343
HIS 304	EUH 3100	HIS 464	LAH 4300	HRM 360	HFT 3423
HIS 305	EUH 3420	HIS 465	EUH 4187	HRM 361C	HFT 3413
HIS 309	EUH 3186	HIS 466	EUH 4187	HRM 398	HFT 3900
HIS 313	EUH 3142	HIS 467	EUH 4187	HRM 399	HFT 3905
HIS 316	EUH 3452	HIS 468	EUH 4187	HRM 400	HFT 4910
HIS 317	EUH 3460	HIS 469	EUH 4187	HRM 401	HFT 4494
HIS 322	AMH 3570	HIS 472	LAH 4932	HRM 404	HFT 4464
HIS 325	AMH 3440	HIS 473	LAH 4932	HRM 405	HFT 4455

Cross Reference — FIU To Statewide

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU 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	IAT 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 341C	CPO 3326
HRM 446	FSS 4431	HSM 682	HCA 6113	INR 342C	INR 3245
HRM 450	HFT 4674	HSM 683	HCA 6316	INR 343	INR 3214
HRM 480	HFT 4274	HSM 684	HCA 6508	INR 344	INR 3246
HRM 481	HFT 4574	HSM 687	HCA 6691	INR 345	INR 3043
HRM 485	HFT 4474	HSM 688	HCA 6201	INR 351	GEA 3554
HRM 500	HFT 5901	HSM 693	HCA 6701	INR 352	GEA 3600
HRM 501	HFT 5901	HSM 695	HCA 6732	INR 353C	INR 3226
HRM 502	HFT 5906	HSM 697	HCA 6392	INR 362	GEA 3400
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
HRM 533	HFT 5595	HUM 312	HUM 3302	INR 424	POS 4691
HRM 536	FSS 5361	HUM 313	HUM 3302	INR 425	INR 4408
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
HRM 610	HFT 6246	HUM 318	HUM 3302	INR 444C	INR 4247
HRM 615	HFT 6586	HUM 319	HUM 3302	INR 445	INR 4054
HRM 620	HFT 6477	HUM 320-349	HUM 3813	INR 453	INR 4024
HRM 621	HFT 6486	HUM 400-419	HUM 4542	INR 456	INR 4044
HRM 625	HFT 6296	HUM 420-449	HUM 4450	INR 461	INR 4082
HRM 626C	HFT 6297	HUM 490	HUM 4906	INR 462C	INR 4931
HRM 628	HFT 6946	HUM 491	HUM 4906	INR 463C	INR 4931
HRM 629	HFT 6697	HUM 492	HUM 4906	INR 464C	INR 4931
HRM 630	HFT 6916	HUM 493	HUM 4906	INR 465C	INR 4931
HRM 635	HFT 6256	HUM 494	HUM 4906	INR 471	INR 4033
HRM 640	HFT 6286	HUM 495	HUM 4906	INR 489	INR 4261
HRM 645	HFT 6446	HUM 496	HUM 4906	INR 518	INR 5906
HRM 650	HFT 6487	HUM 497	HUM 4906	INR 572	INR 5086
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

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
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	ETI 3110	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 6819	MAR 615	MAR 6346
		MAN 605	QMB 6805	MAR 633	MAR 6706
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

Cross Reference — FIU To Statewide

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
MAS 316	COC 3300	MAS 523	STA 5826	MDT 484C	MLS 4700C
MAS 317	MAC 3132	MAS 531	STA 5676	MDT 485	MLS 4755C
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 4160L
MAS 323C	COP 3201	MAS 543	STA 5236	MDT 551C	MLS 5934C
MAS 324	COP 3401	MAS 544	STA 5237	MDT 552C	MLS 5935C
MAS 324C	COP 3400	MAS 571	STA 5606	MDT 553C	MLS 5936C
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
MAS 336	STA 3164	MAS 601	MAP 6127	MET 360	BCN 3560C
MAS 338	STA 3182	MBA 605	ACC 6011	MET 362C	ETM 3510
MAS 345	MAS 3103	MBA 606C	ECP 6704	MET 459C	ETM 4205C
MAS 351	MAD 3305	MBA 607	QMB 6603	MET 460C	ETM 4225C
MAS 361	MAP 3103	MBA 612	ACC 6612	MET 461C	ETM 4235C
MAS 362	MAP 3104	MBA 613	ACC 6513	MET 462C	ETM 4511
MAS 365	MAD 3401	MBA 615C	MAN 6713	MET 463C	ETM 4720C
MAS 375	MAD 3104	MBA 616C	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 4120C
MAS 402	MAE 4811	MBA 637	MAN 6501	MIL 402C	MIS 4410C
MAS 403	CDA 4101	MBA 695C	MAN 6974	MOL 302	ITA 3121
MAS 405	MHF 4302	MBA 699C	MAN 6721	MOL 307	LIN 3200
MAS 415	COP 4610	MDT 306C	MLS 3750C	MOL 308	LIN 3400
MAS 416C	CDA 4163	MDT 307C	MLS 3700C	MOL 309	LIN 3010
MAS 417	CDA 4171	MDT 309L	MLS 3420L	MOL 311	POR 3000
MAS 418	CAP 4721	MDT 375C	MLS 3430C	MOL 311	FOL 3000
MAS 419	MTB 4371	MDT 401	MLS 4306	MOL 311	FRE 3000
MAS 425	MAP 4401	MDT 401L	MLS 4306L	MOL 311	GER 3000
MAS 426	MAP 4402	MDT 402C	MLS 4535C	MOL 311	HEB 3000
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
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 471C	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 4140C	MOL 455	FOL 4935
MAS 516C	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

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
MOL 478	LIN 4418	MUP 505	MUN 5315	NUR 430	NUU 4630
MOL 479	LIN 4620	MUP 507	MUN 5315	NUR 435	NUR 4910C
MOL 479	SPN 4562	MUP 515	MUN 5215	NUR 440	NUR 4910C
MOL 497	FOL 4930	MUP 517	MUN 5465	NUR 445C	NUU 4230C
MOL 498	FOL 4905	MUP 525	MUN 5715	NUR 445L	NUU 4230L
MOL 499	FOL 4958	MUP 527	MUN 5465	NUR 450	NUU 4340
MOL 505	LIN 5934	MUP 535	MVB 5355	NUR 450L	NUU 4340L
MOL 506	FOW 5395	MUP 545	MVP 5350	NUR 455C	NUU 4231C
MOL 510	FOW 5587	MUP 555	MVK 5351	NUR 455L	NUU 4231L
MOL 515	FOW 5934	MUP 565	MVS 5353	NUR 460	NUR 4431
MOL 528	FOT 5802	MUP 575	MVV 5351	NUR 460L	NUR 4431L
MOL 537	FOL 5735	MUP 585	MVW 5353	NUR 465C	NUU 4232C
MOL 556	FOT 5131	MUS 305	MUL 3011	NUR 470	NUR 4134
MOL 558	FOW 5545	MUS 306	MUL 3012	NUR 470L	NUR 4134L
MOL 570	FOW 5938	MUS 307	MUH 3116	NUR 475C	NUR 4625C
MOL 579	LIN 5625	MUS 315	MUH 3211	NUR 493	HSC 4572
MRE 301	HSC 3531	MUS 316	MUH 3212		
MRE 301L	HSC 3531L	MUS 317	MUH 3372	OCT 300	OTH 3000
MRE 321	MRE 3110	MUS 325	MUT 3031	OCT 315	OTH 3120
MRE 321L	MRE 3110L	MUS 326	MUT 3416	OCT 316	OTH 3121
MRE 322	MRE 3205	MUS 327	MUT 3611	OCT 320	OTH 3411
MRE 322L	MRE 3205L	MUS 328	MUC 3201	OCT 326C	OTH 3130
MRE 331	HSC 3511	MUS 328	MUC 3032	OCT 330	OTH 3421
MRE 332	HSC 3512	MUS 335	MUE 3140	OCT 335	OTH 3011
MRE 333	HSC 3513	MUS 385	MUS 3905	OCT 360	OTH 3813
MRE 371	MRE 3800	MUS 395	MUS 3910	OCT 410	OTH 4700
MRE 372	MRE 3810	MUS 415	MUL 4661	OCT 420	OTH 4320
MRE 421	MRE 4410	MUS 416	MUL 4500	OCT 421	OTH 4321
MRE 421L	MRE 4410L	MUS 417	MUL 4400	OCT 430	OTH 4853
MRE 422	MRE 4312	MUS 425	MUL 4311	OCT 431	OTH 4422
MRE 422L	MRE 4312L	MUS 426	MUT 4561	OCT 432	OTH 4190
MRE 434	MRE 4304	MUS 427	MUC 4201	OCT 433C	OTH 4260
MRE 471	MRE 4831	MUS 428	MUC 4202	OCT 440	OTH 4750
MRE 472	MRE 4830	MUS 429	MUM 4301	OCT 450	OTH 4210
MRE 940	MRE 4835	MUS 435	MUG 4101	OCT 460	OTH 4850
MUP 305	MUN 3310	MUS 436	MUG 4301	OCT 461	OTH 4851
MUP 307	MUN 3310	MUS 437	MUG 4201	OCT 462	OTH 4852
MUP 315	MUN 3210	MUS 485	MVS 4975	OCT 500	OTH 5905
MUP 317	MUN 3140	MUS 495	MUS 4910	OCT 501	OTH 5760
MUP 325	MUN 3710	MUS 517	MUH 5375	OCT 502	OTH 5329
MUP 327	MUN 3460	MUS 526	MUT 5325	OCT 503	OTH 5600
MUP 335	MVB 3334	MUS 534	MUG 5105	OCT 504	OTH 5262
MUP 345	MVP 3331	MUS 585	MUS 5905		
MUP 355	MVK 3331	MUS 595	MUS 5910	PAD 301	PAD 3204
MUP 365	MVS 3332			PAD 305	PAD 3702
MUP 366	MVS 3116	NUR 350	NUU 3431	PAD 310	PAD 3413
MUP 367	MVS 3216	NUR 360	NUU 3160	PAD 312	PAD 3034
MUP 375	MVV 3331	NUR 365C	NUU 3210C	PAD 320	PAD 3430
MUP 385	MVW 3333	NUR 365L	NUU 3211L	PAD 321	PAD 3033
MUP 405	MUN 4310	NUR 370	NUU 3220C	PAD 325	PAD 3834
MUP 407	MUN 4310	NUR 375C	NUU 3222C	PAD 400	PAD 4024
MUP 415	MUN 4210	NUR 375L	NUU 3221L	PAD 401	PAD 4110
MUP 417	MUN 4460	NUR 380	NUU 3440C	PAD 402	PAD 4103
MUP 425	MUN 4710	NUR 401C	NUU 4211C	PAD 403	PAD 4414
MUP 427	MUN 4460	NUR 402	NUR 4642	PAD 404	PAD 4104
MUP 435	MVB 4345	NUR 403	NUR 4955	PAD 405	PAD 4804
MUP 445	MVP 4341	NUR 404C	NUU 4410	PAD 406	PAD 4603
MUP 455	MVK 4343	NUR 406	NUU 4330C	PAD 407	PAD 4432
MUP 455	MVK 4341	NUR 410	NUR 4335C	PAD 408	PAD 4032
MUP 465	MVS 4343	NUR 420	NUU 4423C	PAD 409	PAD 4415
MUP 475	MVV 4341	NUR 425	NUU 4254	PAD 410	PAD 4040
MUP 485	MVW 4345	NUR 425L	NUU 4211L	PAD 428	PAD 4223

Cross Reference — FIU To Statewide

# Cross Reference — FIU To Statewide

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
PAD 493	PAD 4905	PHI 319C	PHH 3700	PHT 436	PHT 4823
PAD 520	PAD 5041	PHI 320C	PHI 3420	PHT 437	PHT 4824
PAD 523	PAD 5840	PHI 324	PHI 3700	PHT 438	PHT 4825
PAD 561	PAD 5427	PHI 325	PHI 3401	PHT 447	PHT 4510
PAD 562	PAD 5435	PHI 326	EDF 3542	PHT 456	PHT 4234C
PAD 564	PAD 5443	PHI 327	PHM 3500	PHT 488C	PHT 4351
PAD 600	PAD 6053	PHI 328	PHI 3400	PHY 301	PHY 3040C
PAD 601	PAD 6106	PHI 329	PHI 3800	PHY 301L	PHY 3040L
PAD 602	PAD 6227	PHI 401	PHI 4133	PHY 302	PHY 3041C
PAD 603	PAD 6706	PHI 404C	PHI 4680	PHY 302L	PHY 3041L
PAD 604	PAD 6005	PHI 410	PHH 4500	PHY 303	PHY 3042C
PAD 610	PAD 6838	PHI 411	PHH 4600	PHY 303L	PHY 3042L
PAD 611	PAD 6836	PHI 414	PHP 4784	PHY 305	PHY 3050C
PAD 621	PAD 6035	PHI 415	PHP 4786	PHY 305L	PHY 3050L
PAD 622	PAD 6042	PHI 416	PHP 4782	PHY 306	PHY 3051C
PAD 630	PAD 6701	PHI 418C	PHP 4510	PHY 307	AST 3025L
PAD 631	CIS 6204	PHI 420C	PHI 4631	PHY 315	PSC 3001
PAD 633	PUP 6006	PHI 421C	PHI 4632	PHY 321	PHY 3503
PAD 640	PAD 6417	PHI 422	PHI 4633	PHY 322	PHY 3424
PAD 641	PAD 6437	PHI 427	PHM 4220	PHY 340	PHY 3123
PAD 643	PAD 6109	PHI 428	PHM 4400	PHY 341	PHY 3124
PAD 650	PAD 6816	PHI 430	PHI 4221	PHY 351	PSC 3351
PAD 651	PAD 6807	PHI 431	PHI 4222	PHY 352	PHY 3722C
PAD 660	PAD 6605	PHI 434	PHM 4020	PHY 361	PSC 3810
PAD 663	PAD 6043	PHI 435	PHM 4050	PHY 362	PHY 3033
PAD 691	PAD 6915	PHI 440	PHI 4882	PHY 410	PHY 4221
PAD 692	PAD 6946	PHI 445	PHI 4460	PHY 411	PHY 4526
PAD 693C	PAD 6907	PHI 487	PHI 4930	PHY 415	PHY 4323
PHE 305	PET 3310	PHI 490	PHI 4910	PHY 416	PHY 4324
PHE 306	PET 3360	PHI 495	PHI 4935	PHY 420	PHY 4604
PHE 307	PET 3461C	PHI 591	PHI 5934	PHY 421	PHY 4222
PHE 308	PET 3202	PHR 300C	PHI 3710	PHY 451	PHS 4303
PHE 309	PET 3640C	PHR 310C	PHI 3762	PHY 471	PHY 4936
PHE 405	PET 4450L	PHR 311C	PHH 3840	PHY 472	PHY 4937
PHE 407	PEO 4014C	PHR 315C	PHH 3843	PHY 473	PHY 4938
PHE 408	PET 4430	PHR 401	PHM 4000	PHY 491L	PHY 4905
PHE 411	PET 4230C	PHR 410C	PHI 4764	PHY 492L	PHY 4906
PHE 412	PET 4433	PHR 426C	PHM 4030	PHY 493L	PHY 4907
PHE 416C	PET 4622C	PHR 490C	PHI 4910	PHY 501	PHS 5125
PHE 425	PET 4945L	PHR 495C	PHI 4936	PHY 591	PHY 5936
PHE 436	PET 4510	PHR 591C	PHI 5934	PHY 592	PHY 5937
PHE 505	PET 5925C	PHT 301	PHT 3001	PHY 593	PHY 5938
PHE 506	PET 5238C	PHT 310	PHT 3121	POR 301	POR 3120
PHE 507	PET 5426	PHT 311	PHT 3122	POR 302	POR 3121
PHE 509	PET 5125	PHT 312	PHT 3123	POR 303	POR 3122
PHE 535	PET 5256C	PHT 314	PHT 3310	POR 304	POR 3200
PHE 585	PET 5366C	PHT 317	PHT 3311	POR 305	POR 3201
PHE 595	PET 5906	PHT 320	PHT 3300	POR 325	POR 3420
PHE 695	PET 6944	PHT 323	PHT 3133C	POR 365C	PRT 3401
PHE 696	PET 6932	PHT 324	PHT 3232C	POR 497C	POW 4930
PHE 698	PET 6535	PHT 333	PHT 3803	POR 498C	POW 4905
PHI 300	PHI 3010	PHT 334	PHT 3812	POS 301	POS 3001
PHI 301	PHI 3100	PHT 344	PHT 3400	POS 302C	POS 3705
PHI 302	PHI 3300	PHT 352	PHT 3202C	POS 303	PUP 3004
PHI 303	PHI 3500	PHT 354	PHT 3231	POS 304	CPO 3303
PHI 305	PHI 3600	PHT 407	PHT 4905	POS 305C	CPO 3002
PHI 310	PHI 3302	PHT 415	PHT 4312	POS 306	INR 3002
PHI 312	PHH 3200	PHT 416	PHT 4235C	POS 307C	CPO 3323
PHI 313	PHH 3300	PHT 417	PHT 4313	POS 308	CPO 3513
PHI 314C	PHH 3420	PHT 425	PHT 4141	POS 309C	CPO 3553
PHI 316	PHP 3840	PHT 426	PHT 4932	POS 310C	CPO 3514
PHI 318C	PHH 3042	PHT 435	PHT 4822	POS 311C	POT 3013

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
POS 312C	POS 3122	POS 553C	POS 5606	PSY 361	EXP 3304
POS 313C	CPO 3643	POS 556C	POT 5115	PSY 362	CLP 3003
POS 314	PAD 3003	POS 566	POT 5934	PSY 363	SOP 3772
POS 316	CPO 3333	POS 572C	POS 5934	PSY 370	SOP 3004
POS 317C	INR 3603	POS 587C	INR 5414	PSY 372	SOP 3931
POS 321	POS 3424	POS 607C	POT 6007	PSY 410	SOP 4712
POS 321	POS 3044	POS 615	PUP 6007	PSY 412	LIN 4701
POS 322C	POT 3054	POS 617	INR 6007	PSY 413	EAB 4794
POS 323C	POS 3153	POS 618	POS 6146	PSY 420	SOP 4705
POS 326C	CPO 3304	POS 683C	POS 6934	PSY 421	CYP 4933
POS 331	POS 3283	PPS 506	EGC 5405	PSY 422	SOP 4513
POS 333	POT 3064	PPS 508	EGC 5305	PSY 427C	DEP 4204
POS 339	INR 3403	PPS 508L	EGC 5319	PSY 429	CYP 4953
POS 341	POS 3453	PPS 601	EGC 6707	PSY 430	LIN 4710
POS 343	POS 3603	PPS 602	EGC 6708	PSY 431	DEP 4163
POS 344C	POS 3604	PPS 610	EGC 6725	PSY 432	DEP 4164
POS 345C	PAD 3803	PPS 611	EGC 6726	PSY 433	SOP 4015
POS 348	INR 3502	PPS 612	EGC 6709	PSY 434	DEP 4464
POS 403C	CPO 4360	PPS 620	EGC 6462	PSY 435	DEP 4044
POS 404C	CPO 4034	PPS 621	EEEX 6211	PSY 439	DEP 4704C
POS 405	CPO 4103	PPS 622C	EGC 6255	PSY 440	EXP 4934
POS 407C	POS 4905	PPS 626	EGC 6616	PSY 441	EXP 4204
POS 408C	POT 4123	PPS 627	EGC 6203	PSY 442	EXP 4605
POS 409C	CPO 4327	PPS 628	EGC 6822	PSY 443	PSB 4003
POS 411C	POS 4413	PPS 629C	EGC 6248	PSY 448C	PSY 4693
POS 413	INR 4102	PPS 630C	EGC 6605	PSY 449	EXP 4404C
POS 417	PUP 4056	PPS 650	EGC 6001	PSY 450	SOP 4615
POS 420	POS 4233	PPS 695	EGC 6890	PSY 451	INP 4203
POS 422C	POT 4055	PPS 696	EGC 6936	PSY 452	SOP 4645
POS 423	POS 4154	PPS 697C	EGC 6925	PSY 453	SOP 4649
POS 427C	POT 4204	PRM 305	LEI 3542	PSY 459	INP 4055C
POS 431	POS 4253	PRM 307	LEI 3630	PSY 460	PPE 4604
POS 438C	INR 4244	PPS 698	EGC 6905	PSY 461	CLP 4144
POS 439C	PUP 4203	PRM 309	ORH 3220C	PSY 462	PPE 4930
POS 441C	CPO 4055	PRM 350	LEI 3524	PSY 463	PPE 4105
POS 442C	POS 4284	PRM 375	LEI 3437	PSY 464	PPE 4514
POS 444C	POT 4302	PRM 425	LEI 4940	PSY 465	CLP 4374
POS 445C	POS 4145	PRM 497	LEI 4590	PSY 467C	DEP 4213
POS 452C	POS 4463	PRM 505	LEI 5510	PSY 469	PPE 4325C
POS 455C	POT 4113	PRM 509	LEI 5440	PSY 470	SOP 4505
POS 460	CPO 4072	PRM 550	LEI 5595	PSY 471	SOP 4525
POS 461C	POS 4933	PRM 595	LEI 5907	PSY 472	SOP 4214
POS 462C	POS 4496	PRM 695	LEI 6922	PSY 473	SOP 4522
POS 463	PUP 4314	PSY 300	PSY 3013	PSY 474C	SOP 4842
POS 465C	PUP 4323	PSY 305	EDP 3004	PSY 479	SOP 4215C
POS 466C	POT 4930	PSY 307	DEP 3000	PSY 479L	SOP 4215L
POS 469C	INR 4407	PSY 310	SOP 3742	PSY 480	PSY 4930
POS 471C	POS 4944	PSY 311	SOP 3932	PSY 481	SOP 4735
POS 472C	POS 4944	PSY 320	CYP 3003	PSY 482	SOP 4444
POS 473C	PAD 4944	PSY 321	SOP 3724	PSY 483	SOP 4715
POS 474C	INR 4942	PSY 322	SOP 3725	PSY 488	PPE 4123
POS 481	PUP 4404	PSY 323	SOP 3783	PSY 490	PSY 4900
POS 484	PUP 4520	PSY 330	DEP 3001	PSY 491	PSY 4941
POS 486C	CPO 4930	PSY 331	DEP 3303	PSY 492	PSY 4916
POS 488	POS 4493	PSY 332	DEP 3402	PSY 498	PSY 4931
POS 488	CPO 4005	PSY 340	PPE 3502	PSY 499	PSY 4914
POS 491C	POS 4935	PSY 341	EXP 3652	PSY 507C	PSY 5206C
POS 492C	POS 4935	PSY 343C	PSB 3523C	PSY 508C	PSY 5246C
POS 493C	POS 4935	PSY 349	PSY 3043C	PSY 510	DEP 5045
POS 495C	POS 4147	PSY 349L	PSY 3043L	PSY 520C	CYP 5535
POS 518C	POS 5909	PSY 350	INP 3002	PSY 521C	CYP 5515
POS 552	PUP 5934	PSY 360	PPE 3003	PSY 522	CYP 5526

Cross Reference — FIU To Statewide

Cross Reference — FIU To Statewide

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & 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
PSY 565C	EAB 5655	RES 686	REE 6195	SOC 463	MAF 4510
PSY 570	SOP 5058	RES 687	REE 6715	SOC 464	MAF 4511
PSY 580	PSY 5939	RES 688	REE 6795	SOC 465C	SOC 4408
PSY 601	EDP 6935	RES 689	REE 6395	SOC 466C	SOC 4463
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
PSY 699L	PSY 6971	RG 290	REA 2930	SOC 472	SOC 4705
		RUS 301C	RUS 3100	SOC 473C	HUS 4413
		RUS 302C	RUS 3101	SOC 474	SOC 4480
		RUS 303C	RUS 3102	SOC 475	SOC 4267
REL 300	REL 3020			SOC 476	SOC 4464
REL 301	REL 3410			SOC 477	SOC 4230
REL 302	REL 3160			SOC 478	SOC 4211
REL 303	REL 3161	SOC 301	SOC 3000	SOC 479	SOC 4221
REL 304C	REL 3442	SOC 302	SOC 3001	SOC 480C	SOC 4214
REL 305	REL 3464	SOC 311	SOC 3830	SOC 481	SOC 4620
REL 306	REL 3172	SOC 312	SOC 3820	SOC 482C	SOC 4741
REL 310	REL 3210	SOC 313	SOC 3850	SOC 483	SOC 4540
REL 312	REL 3224	SOC 321	SOC 3150	SOC 484C	SOC 4428
REL 315	REL 3250	SOC 322	SOC 3130	SOC 485C	SOC 4475
REL 317	REL 3252	SOC 323	SOC 3110	SOC 486	SOC 4930
REL 320	REL 3300	SOC 331	SOC 3380	SOC 491	SOC 4440
REL 323	REL 3600	SOC 332	SOC 3380	SOC 492	SOC 4652
REL 326	REL 3510	SOC 333	SOC 3380	SOC 493	SOC 4002
REL 328	REL 3532	SOC 334	SOC 3380	SOC 494	SOC 4640
REL 329	REL 3540	SOC 335	SOC 3380	SOC 495	SOC 4653
REL 340	REL 3665	SOC 341	SOC 3300	SOC 496	SOC 4746
REL 341	REL 3270	SOC 342	SOC 3424	SOC 497	SOC 4931
REL 350	REL 3175	SOC 343	SOC 3281	SOC 498C	SOC 4905
REL 400	REL 4485	SOC 345C	SOC 3828	SOC 499	SOC 4941
REL 403	REL 4461	SOC 351	DHE 3101	SOC 511C	SOC 5658
REL 405	REL 4463	SOC 352	DHE 3300	SOC 511C	SOC 6651
REL 406	REL 4185	SOC 361	SOC 3201	SOC 572	SOC 5140
REL 407	REL 4493	SOC 363	MAF 3210	SOC 581	SOC 5261
REL 409	REL 4411	SOC 371	SOC 3020	SOC 582	SOC 5284
REL 420	REL 4420	SOC 381	SOC 3402	SOC 586	SOC 5656
REL 426	REL 4481	SOC 402	SOC 4504	SOC 587	SOC 5255
REL 429	REL 4430	SOC 403	SOC 4611	SOC 589	SOC 5264
REL 445	REL 4183	SOC 404C	SOC 4829	SOC 590	SOC 5316
REL 450	REL 4496	SOC 405C	SOC 4610	SOC 591	SOC 5909
REL 460	REL 4808	SOC 406	SOC 4003	SOC 592	SOC 5941
REL 490	REL 4910	SOC 411	SOC 4833	SOW 301	SOW 3203
REL 495	REL 4931	SOC 412	SOC 4842	SOW 302	SOW 3232
REL 591	REL 5937	SOC 413	SOC 4841	SOW 305	SOW 3113
RES 390	REE 3040	SOC 414	SOC 4004	SOW 306	SOW 3703
RES 391	REE 3430	SOC 421C	SOC 4251	SOW 307	SOW 3313
RES 407	REE 4140	SOC 422	SOC 4835	SOW 308	SOW 3511
RES 409	REE 4310	SOC 431	SOC 4490		
RES 493	REE 4905	SOC 432	SOC 4490		

Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number
SOW 309	SOW 3522	SPA 428	SPT 4801	THE 485	THE 4950
SOW 317	SOW 3350	SPA 438	SPW 4810	THE 487C	TPA 4260
SOW 401	SOW 4403	SPA 455	SPN 4936	THE 488	TPA 4054
SOW 402	SOW 4233	SPA 460	SPN 4501	THE 495	THE 4916
SOW 405	SOW 4133	SPA 465C	SPW 4152	THE 585C	THE 5940
SOW 405C	SOW 4125C	SPA 475C	SPN 4790	THE 595C	THE 5916
SOW 407	SOW 4322	SPA 476C	SPN 4800	TRA 405	TRA 4240
SOW 408	SOW 4512	SPA 478C	FLE 4873	TRA 406	TRA 4510
SOW 409	SOW 4523	SPA 497	SPW 4930	TRA 408	TRA 4320
SOW 417	SOW 4332	SPA 498C	SPN 4905	TRA 410	TRA 4101
SOW 420	SOW 4514	SPA 499	SPN 4470	TRA 417	TRA 4203
SOW 480	SOW 4193	SPA 501	SPN 5060	TRA 419	TRA 4012
SOW 485	SOW 4621	SPA 502	SPN 5061	TRA 441	TRA 4410
SOW 492	SOW 4242	SPA 505	SPN 5930	TRA 442	TRA 4411
SOW 495	SOW 4905	SPA 506	SPW 5391	TRA 443	TRA 4412
SOW 496	SOW 4905	SPA 510C	SPW 5155	TRA 492	TRA 4320
SOW 499	SOW 4675	SPA 515	SPW 5934	TRA 493	TRA 4906
SOW 500	SOW 5914	SPA 527	SPN 5416	TRA 495	TRA 4941
SOW 501	SOW 5435	SPA 528	SPT 5802	TRA 497	TRA 4936
SOW 511	SOW 5436	SPA 556C	SPT 5118	TRA 501	TRA 5601
SOW 515	SOW 5354	SPA 570	SPW 5936	TRA 507	TRA 5401
SOW 530	SOW 5684	SPA 579C	SPN 5565	TRA 515	TRA 5245
SOW 533	SOW 5643	SPE 305	SPC 3600	TRA 600	TRA 6035
SOW 596	SOW 5217			TRA 693	TRA 6905
SOW 502C	SOW 5272	TEY 320	OTH 3123	TRA 697	TRA 6936
SPA 301	SPN 3120	THE 305	THE 3000	TTM 301	HFT 3700
SPA 302	SPN 3121	THE 315	TPP 3700	TTM 303	HFT 3722
SPA 303	SPN 3122	THE 316	ORI 3000	TTM 304	HFT 3727
SPA 304	SPN 3200	THE 317	TPP 3100	TTM 305	HFT 3763
SPA 305	SPN 3201	THE 317	TPP 3730	TTM 306	HFT 3733
SPA 306	SPN 3820	THE 325	TPP 3310	TTM 307	HFT 3753
SPA 306	SPW 3820	THE 328	THE 3051	TTM 308	HFT 3713
SPA 307	SPN 3780	THE 335	TPA 3200	TTM 309	HFT 3941
SPA 308C	SPN 3705	THE 336	TPA 3220	TTM 310	HFT 3945
SPA 309C	SPN 3733	THE 337	TPA 3250	TTM 312	HFT 3793
SPA 315	SPT 3810	THE 345	TPA 3010	TTM 404	HFT 4465
SPA 325	SPN 3420	THE 352	THE 3510		
SPA 326	SPN 3421	THE 353	THE 3511	UPT 511	URP 5312
SPA 327	SPN 3415	THE 357	THE 3071	UPT 615	URP 6222
SPA 328	SPT 3800	THE 357	FIL 3506	URB 401C	URP 4006
SPA 335	SPN 3840	THE 358	FIL 3200	URB 405C	URP 4055
SPA 336	SPN 3820	THE 358	THE 3075	URB 415C	URP 4023
SPA 355	SPW 3580	THE 417C	TPP 4230L	URB 416C	URP 4027
SPA 356	SPW 3582	THE 425	TPP 4311	URB 493C	URP 4905
SPA 357	SPW 3584	THE 427	THE 4820	URB 497C	URP 4930
SPA 359	SPW 3520	THE 431	TPA 4230	URB 503	URP 5057
SPA 360	SPN 3500	THE 432	TPA 4231	URB 505C	URP 5881
SPA 397	SPW 3930	THE 435	TPA 4201	URB 510C	GEO 5605
SPA 398C	SPN 3905	THE 445	TPA 4061	URB 511C	URP 5312
SPA 399	SPN 3270	THE 451	THE 4110	URB 535C	DHE 5434
SPA 405	SPW 4590	THE 452	THE 4111	URB 585C	URS 5925
SPA 406	SPW 4390	THE 458	THE 4076	URB 600C	URS 6000
SPA 407	SPW 4790	THE 465	TPP 4600	URB 693C	URP 6905
SPA 411	SPN 4013	THE 475	TPA 4400	URB 697C	URP 6934

# 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 supplementary publications available from the office of Student Academic Services.

Cross Reference — Statewide To FIU

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
ACC 3300	ACC 300	ACC 6557	ACC 623	ADE 5935	EAD 538
ACC 3300	BUA 300C	ACC 6558	ACC 624	ADE 5935	EAD 537
ACC 3303	BUA 307	ACC 6559	ACC 625	ADE 5935	EAD 536
ACC 3882	ACC 301	ACC 6582	ACC 626	ADE 5935	EAD 535
ACC 3949	COE 325	ACC 6612	MBA 612	ADE 5935	EAD 550
ACC 4101	ACC 401	ACC 6651	ACC 612	ADE 5945	EAD 596
ACC 4121	ACC 402	ACC 6735	ACC 602	ADE 6930	EAD 697
ACC 4201	ACC 403	ACC 6745	ACC 603	AFR 3201	AIS 301C
ACC 4248	ACC 424	ACC 6822	ACC 630	AFR 3210	AIS 302C
ACC 4271	ACC 419	ACC 6832	ACC 631	AFR 4220	AIS 401C
ACC 4301	ACC 405	ACC 6845	ACC 608C	AFR 4230	AIS 402C
ACC 4348	ACC 425	ACC 6907	ACC 693	AMH 3130	HIS 327
ACC 4501	ACC 406	ACC 6910	ACC 695	AMH 3170	HIS 328
ACC 4522	ACC 414C	ACC 6932	ACC 611	AMH 3251	HIS 331
ACC 4548	ACC 413	ACC 6935	ACC 697	AMH 3270	HIS 332
ACC 4601	ACC 407	ADE 5081	EAD 507	AMH 3275	HIS 333
ACC 4648	ACC 412	ADE 5180	EAD 519	AMH 3317	HIS 347
ACC 4731	ACC 408	ADE 5195	EAD 510	AMH 3331	HIS 345
ACC 4803	ACC 417	ADE 5260	EAD 508	AMH 3332	HIS 346
ACC 4905	ACC 493	ADE 5383	EAD 520	AMH 3354	HIS 329
ACC 4930	ACC 497	ADE 5385	EAD 509	AMH 3355	HIS 330
ACC 4949	COE 425	ADE 5906	EAD 595	AMH 3420	HIS 349
ACC 5111	ACC 502	ADE 5925	EAD 525	AMH 3428	HIS 351
ACC 5131	ACC 503	ADE 5935	EAD 526	AMH 3440	HIS 325
ACC 5211	ACC 517	ADE 5935	EAD 534	AMH 3500	HIS 334
ACC 5311	ACC 501	ADE 5935	EAD 533	AMH 3560	HIS 348
ACC 5511	ACC 513	ADE 5935	EAD 532	AMH 3570	HIS 322
ACC 5611	ACC 512	ADE 5935	EAD 531	AMH 4025	HIS 442
ACC 5734	ACC 508	ADE 5935	EAD 530	AMH 4030	HIS 443
ACC 5865	ACC 506	ADE 5935	EAD 529	AMH 4110	HIS 440
ACC 6011	MBA 605	ADE 5935	EAD 528	AMH 4150	HIS 441
ACC 6275	ACC 616	ADE 5935	EAD 527	AMH 4930	HIS 451
ACC 6291	ACC 610	ADE 5935	EAD 549	AMH 4930	HIS 453
ACC 6313	MBA 627	ADE 5935	EAD 548	AMH 4930	HIS 454
ACC 6391	ACC 607	ADE 5935	EAD 547	AMH 4930	HIS 455
ACC 6411	ACC 606	ADE 5935	EAD 546	AMH 4930	HIS 456
ACC 6512	ACC 613	ADE 5935	EAD 545	AMH 4930	HIS 457
ACC 6513	MBA 613	ADE 5935	EAD 544	AMH 4930	HIS 458
ACC 6531	ACC 614	ADE 5935	EAD 543	AMH 4930	HIS 459
ACC 6553	ACC 615	ADE 5935	EAD 542	AMH 4930	HIS 452
ACC 6554	ACC 620	ADE 5935	EAD 541	AML 4144	ENG 435
ACC 6555	ACC 621	ADE 5935	EAD 540	AML 4144	ENG 436
ACC 6556	ACC 622	ADE 5935	EAD 539	AML 4144	ENG 437

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
AML 4144	ENG 439	ANT 4474	ANT 485	ARH 5172	ARH 535
AML 4144	ENG 438	ANT 4705	ANT 400	ARH 5303	ARH 555
AML 4144	ENG 440	ANT 4723	ANT 401	ARH 5412	ARH 576
AML 5212	ENG 510	ANT 4750	ANT 444C	ARH 5432	ARH 566
AML 5212	ENG 507	ANT 4907	ANT 491	ARH 5555	ARH 516
AML 5212	ENG 506	ANT 4908	ANT 492	ARH 5615	ARH 567
AML 5212	ENG 505	ANT 4930	ANT 431C	ARH 5812	ARH 577
AML 5212	ENG 502	ANT 4930	ANT 474C	ARH 5907	ARH 585
AML 5212	ENG 501	ANT 4930	ANT 446	ARH 5913	ARH 595
AML 5212	ENG 500	ANT 4930	ANT 432C	ART 3111	FIA 361
AML 5212	ENG 509	ANT 4930	ANT 433C	ART 3150	FIA 337
AML 5212	ENG 508	ANT 4930	ANT 434C	ART 3202	FIA 305C
ANT 4224	ANT 418C	ANT 4930	ANT 435C	ART 3203	FIA 306C
ANT 3000	ANT 301	ANT 4930	ANT 470C	ART 3310	FIA 315
ANT 3004	ANT 304	ANT 4930	ANT 471C	ART 3331	FIA 316
ANT 3086	ASC 301	ANT 4930	ANT 472C	ART 3401	FIA 345
ANT 3144	ANT 303C	ANT 4930	ANT 473C	ART 3510	FIA 325
ANT 3241	ANT 326	ANT 4944	ANT 461C	ART 3601	FIA 355
ANT 3251	ANT 327	ANT 5466	ANT 555	ART 3630	FIA 357
ANT 3262	ANT 313C	ANT 5468	ANT 557	ART 3631	FIA 358
ANT 3263	ANT 413C	ANT 5726	ANT 522	ART 3651	FIA 375
ANT 3302	ANT 366	ANT 5908	ANT 591	ART 3702	FIA 335
ANT 3402	ANT 311C	ANT 5915	ANT 592	ART 3904	FIA 385
ANT 3403	ANT 365	ANT 5937	ANT 501	ART 3905	FIA 395
ANT 3422	ANT 325	APB 3253	BSC 306C	ART 4114	FIA 465
ANT 3425	ANT 385	APB 5933	BSC 502C	ART 4151	FIA 437C
ANT 3432	ANT 337	ARC 3210	CSN 370	ART 4320	FIA 415
ANT 3435	ANT 370C	ARC 3450	CSN 375	ART 4332	FIA 416
ANT 3442	ANT 335	ARC 3466	CSN 304	ART 4402	FIA 445C
ANT 3462	ANT 355	ARC 3484	CSN 376	ART 4532	FIA 425
ANT 3476	ANT 328	ARC 3586	CSN 328	ART 4604	FIA 455
ANT 3500	ANT 302	ARC 3786	CSN 385	ART 4632	FIA 458
ANT 3512	ANT 305	ARC 4039	CSN 479	ART 4652	FIA 475
ANT 3542	ANT 356C	ARC 4270	CSN 482	ART 4703	FIA 435
ANT 3733	ANT 386C	ARC 4335	CSN 407	ART 4906	FIA 485
ANT 4007	ANT 415	ARC 4336	CSN 471	ART 4910	FIA 495
ANT 4211	ANT 425	ARC 4485	CSN 480	ART 4955	FIA 490L
ANT 4242	ANT 466	ARC 4590	CSN 457	ART 5125	FIA 565
ANT 4243	ANT 467C	ARC 5916	CSN 570	ART 5159	FIA 537
ANT 4273	ANT 405C	ARE 3313	EEL 318	ART 5340	FIA 515
ANT 4305	ANT 475	ARE 4316	EAR 405	ART 5341	FIA 516
ANT 4306	ANT 440C	ARE 4341	EAR 416	ART 5403	FIA 545C
ANT 4312	ANT 438C	ARE 4940	EAR 425	ART 5580	FIA 525
ANT 4314	ANT 424	ARE 5251	EAR 505	ART 5620	FIA 555
ANT 4315	ANT 423	ARE 5905	EAR 595C	ART 5660	FIA 575
ANT 4324	ANT 430C	ARE 6140	EAR 605	ART 5730	FIA 535
ANT 4328	ANT 429	ARE 6262	EAR 607	ART 5907	FIA 585
ANT 4332	ANT 421	ARE 6304	ECE 618	ART 5910	FIA 595
ANT 4340	ANT 420	ARE 6315	EEL 618	ARV 3210	IAT 307C
ANT 4343	ANT 422	ARE 6706	EAR 609	ART 4150	IAT 408C
ANT 4352	ANT 426	ARE 6926	EAR 697C	ARV 4250	IAT 407C
ANT 4360	ANT 427	ARH 4170	ARH 435C	AST 3025	PHY 307
ANT 4361	ANT 428	ARH 4301	ARH 455C	AST 3100	EAS 309C
ANT 4405	ANT 450C	ARH 4410	ARH 476C	AST 3213	EAS 310C
ANT 4406	ANT 469C	ARH 4431	ARH 466C		
ANT 4433	ANT 437C	ARH 4470	ARH 475	BCH 3033	BSC 301L
ANT 4451	ANT 403	ARH 4552	ARH 416C	BCH 3930	BSC 301D
ANT 4452	ANT 411	ARH 4610	ARH 467	BCH 5213	BSC 508C
ANT 4453	ANT 412	ARH 4800	ARH 477C	BCH 5315	BSC 507C
ANT 4454	ANT 439C	ARH 4905	ARH 485	BCH 5345	BSC 509C
ANT 4460	ANT 456C	ARH 4910	ARH 495	BCH 6506	BSC 601C
ANT 4469	ANT 455C	ARH 4931	ARH 478	BCN 3210	CSN 301

Cross Reference — Statewide To FIU

Cross Reference — Statewide To FIU

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU 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
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
BCN 4473	CSN 428C	CCJ 4281	CRJ 408C	CHM 3412	CHE 323
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
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
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
BOT 3935	BSC 329L	CCJ 4940	CRJ 440	CHM 4460	CHE 406
BOT 3935	BSC 329C	CCJ 4949	COE 450	CHM 4490	CHE 405
BOT 5575	BSC 545C	CCJ 6050	CRJ 629	CHM 4580	CHE 483
BOT 5575	BSC 545L	CCJ 6055	CRJ 600C	CHM 4610	CHE 431
BOT 5665	BSC 570C	CCJ 6105	CRJ 623C	CHM 4680	CHE 485
BOT 5665	BSC 570L	CCJ 6285	CRJ 627C	CHM 4910	CHE 491L
BOT 6536	BSC 665C	CCJ 6365	CRJ 624C	CHM 4911	CHE 492L
BSC 3023	BSC 300C	CCJ 6456	CRJ 607C	CHM 4912	CHE 493L
BSC 3033	BSC 305C	CCJ 6457	CRJ 606C	CHM 4930	CHE 495
BSC 3913	BSC 380	CCJ 6467	CRJ 605C	CHM 5181	CHE 587
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
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	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
CLP 3004	PSY 362	CTE 4827	CLT 403	DIE 6937	DIN 600C
CLP 4144	PSY 461	CTE 4880	CLT 440	DIE 6971	DIN 699C
CLP 4374	PSY 465	CTE 4890	CLT 402		
CLP 5166	PSY 563	CTE 4905	CLT 495	EAB 4794	PSY 413
CLP 5175	PSY 560	CTE 4930	CLT 497	EAB 5655	PSY 565C
CLP 5185	PSY 561	CTE 5345	CLT 535C	ECO 3003	ECO 301
CLP 5931	PSY 564C	CTE 5355	CLT 538	ECO 3040	ECO 305
COA 3130	HMF 301	CTE 5422	CLT 536	ECO 3101	ECO 307
COA 3410	HMF 306	CTE 5746	CLT 534	ECO 3202	BUA 311C
COA 3411	HRM 312	CTE 5905	CLT 595	ECO 3203	ECO 308
COA 4440	HMF 407	CTE 5930	CLT 537	ECO 3223	ECO 306
COA 4460	HMF 410	CYP 3003	PSY 320	ECO 3303	ECO 312
COA 4942	HMF 495	CYP 4933	PSY 421	ECO 3432	ECO 311
COA 5450	HMF 510	CYP 4953	PSY 429	ECO 4134	ECO 432
COC 3300	MAS 316	CYP 5515	PSY 521C	ECO 4224	ECO 426
COC 3400	MAS 310	CYP 5526	PSY 522	ECO 4225	ECO 436
COP 3110	MAS 311C	CYP 5535	PSY 520C	ECO 4307	ECO 412
COP 3120	MAS 319	CYP 5954	PSY 529	ECO 4401	ECO 430
COP 3170	MAS 300C	CYP 6536	PSY 621	ECO 4422	ECO 431
COP 3172	MAS 323	CYP 6936	PSY 620C	ECO 4504	ECO 425
COP 3201	MAS 323C	CYP 6956	PSY 629L	ECO 4603	ECO 418
COP 3201	MAS 315			ECO 4622	ECO 416
COP 3400	MAS 312	DAA 3820	DAN 315R	ECO 4623	ECO 417
COP 3400	MAS 324C	DAA 4821	DAN 415R	ECO 4632	ECO 415
COP 3401	MAS 324	DEP 3000	PSY 307	ECO 4701	ECO 437
COP 3500	MAS 313	DEP 3001	PSY 330	ECO 4703	ECO 438
COP 3530	MAS 377	DEP 3303	PSY 331	ECO 4713	ECO 439
COP 4610	MAS 415	DEP 3402	PSY 332	ECO 4733	ECO 440
COP 5540	MAS 516C	DEP 4044	PSY 435	ECO 4902	ECO 460
COP 5640	MAS 518	DEP 4163	PSY 431	ECO 4902	ECO 461C
COT 4320	MAS 475	DEP 4164	PSY 432	ECO 4902	ECO 462C
CPO 3002	POS 305C	DEP 4204	PSY 427C	ECO 4906	ECO 463C
CPO 3302	POS 304	DEP 4213	PSY 467C	ECO 5216	ECO 507
CPO 3304	POS 326C	DEP 4464	PSY 434	ECO 5423	ECO 531
CPO 3323	POS 307C	DEP 4704	PSY 439	ECO 5906	ECO 560
CPO 3326	INR 341C	DEP 5045	PSY 510	ECO 5906	ECO 561C
CPO 3333	POS 316	DEP 5145	PSY 530	ECO 5906	ECO 562C
CPO 3513	POS 308	DEP 5405	PSY 532C	ECO 5906	ECO 563C
CPO 3514	POS 310C	DHE 3101	SOC 351	ECO 6115	ECO 665
CPO 3553	POS 309C	DHE 3300	SOC 352	ECO 6236	ECO 626
CPO 3643	POS 313C	DHE 5434	URB 535C	ECO 6938	ECO 666
CPO 4005	POS 488	DIE 3005	DIN 300	ECO 6938	ECO 660
CPO 4034	POS 404C	DIE 3125	DIN 320	ECP 3123	ECO 328
CPO 4055	POS 441C	DIE 3175	DIN 321	ECP 3144	ECO 329
CPO 4072	POS 460	DIE 3245	DIN 330	ECP 3303	ECO 319
CPO 4103	POS 405	DIE 3275	DIN 331	ECP 3613	ECO 320
CPO 4327	POS 409C	DIE 4195	DIN 453	ECP 3623	ECO 321
CPO 4360	POS 403C	DIE 4296	DIN 452	ECP 4003	ECO 444
CPO 4930	POS 486C	DIE 4317	DIN 440	ECP 4004	ECO 467
CRW 4240	ENG 416	DIE 4365	DIN 441	ECP 4013	ECO 441
CRW 4340	ENG 415	DIE 4377	DIN 442	ECP 4203	ECO 428
CTE 3310	CLT 335	DIE 4435	DIN 450	ECP 4222	ECO 429
CTE 3312	CLT 301	DIE 4436	DIN 450L	ECP 4314	ECO 421
CTE 3401	CLT 337	DIE 4506	DIN 490	ECP 4403	ECO 424
CTE 3602	CLT 325	DIE 4536	DIN 451	ECP 4433	ECO 422
CTE 3852	CLT 302	DIE 5247	DIN 530	ECP 4515	ECO 435
CTE 4340	CLT 435	DIE 5926	DIN 560	ECP 4534	ECO 434
CTE 4352	CLT 438	DIE 6128	DIN 620	ECP 5605	ECO 520
CTE 4421	CLT 444	DIE 6568	DIN 691	ECP 6704	ECO 606
CTE 4741	CLT 425	DIE 6578	DIN 693	ECP 6704	MBA 606C
CTE 4761	CLT 437	DIE 6907	DIN 650	ECS 3003	ECO 313
CTE 4821	CLT 401	DIE 6908	DIN 695	ECS 3402	ECO 304

Cross Reference — Statewide To FIU

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU 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
EDA 6510	EDA 606C	EEX 6106	EEC 612C	ENG 4103	ENG 402
EDA 6530	EDA 607C	EEX 6211	PPS 621	ENG 4103	ENG 410
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
EDE 4943	EEL 425	EEX 6863	EEC 695	ENG 4103	ENG 406
EDE 5905	EEL 595	EEX 6906	EEC 698C	ENG 4103	ENG 403
EDE 6205	EEL 605	EEX 6927	EEC 697C	ENG 4103	ENG 408
EDE 6225	EEL 606	EGC 5305	PPS 508	ENG 4134	ENG 420
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
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
EDF 5287	EDU 505	EGC 6616	PPS 626	ENG 6909	ENG 698
EDF 5430	EDU 517	EGC 6707	PPS 601	ENL 4137	ENG 433
EDF 5481	EDO 507	EGC 6708	PPS 602	ENL 4138	ENG 431
EDF 5710	EDU 509	EGC 6708	PPS 612	ENL 4139	ENG 432
EDF 5720	EDU 514	EGC 6725	PPS 610	ENL 4540	ENG 451C
EDF 5724	EDU 510	EGC 6726	PPS 611	ENL 4540	ENG 452C
EDF 5780	EDU 515	EGC 6822	PPS 628	ENL 4540	ENG 453C
EDF 5905	EDU 595	EGC 6890	PPS 695	ENL 4540	ENG 454C
EDF 5955	EDU 508	EGC 6905	PPS 698	ENL 5220	ENG 518
EDF 6215	EDU 606	EGC 6925	PPS 697C	ENL 5220	ENG 511
EDF 6486	EDU 605	EGC 6936	PPS 696	ENL 5220	ENG 515
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

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
ETC 3323	CSN 307	ETG 4930	IAT 497	EUH 4200	HIS 422
ETC 3410	CSN 353	ETG 4930	ITE 497	EUH 4201	HIS 423
ETC 3420	CSN 357	ETG 4949	COE 440C	EUH 4205	HIS 428
ETC 3570	EVS 330C	ETI 3110	ITE 324	EUH 4206	HIS 429
ETC 4205	CSN 402C	ETI 3411	MET 300	EUH 4286	HIS 431
ETC 4222	CSN 405C	ETI 3417	IAT 306	EUH 4286	HIS 432
ETC 4252	IAT 405C	ETI 3444	ITE 312	EUH 4286	HIS 433
ETC 4429	CSN 465	ETI 3603	ITE 371	EUH 4286	HIS 434
ETC 4440	CSN 451	ETI 3645	ITE 330	EVR 3011	EVR 301
ETC 4450	CSN 455	ETI 3646	ITE 331	EVR 3012	EVR 302
ETC 4460	CSN 452	ETI 3661	ITE 401	EVR 3013	EVR 303
ETC 4502	CSN 413	ETI 3670	ITE 300	EVR 3931	EVR 312
ETC 4530	CSN 400	ETI 3681	ITE 320	EVR 3949	COE 311
ETC 4541	CSN 411	ETI 3700	ITE 350	EVR 4021	EVR 401
ETC 4560	EVS 430C	ETI 4421	IAT 419	EVR 4022	EVR 402
ETC 5422	CSN 557	ETI 4452	ITE 476	EVR 4211	EVR 421
ETC 5470	CSN 556	ETI 4620	ITE 480	EVR 4231	EVR 431
ETC 5507	CSN 513C	ETI 4632	ITE 471	EVR 4311	EVR 441
ETC 5514	CSN 512	ETI 4634	ITE 428	EVR 4905	EVR 491
ETC 5571	EVS 530C	ETI 4635	ITE 429	EVR 4905	EVR 492
ETC 5572	EVS 542C	ETI 4650	ITE 440C	EVR 4949	COE 411
ETC 5950	CSN 564	ETI 4660	ITE 400	EVR 5061	EVR 515
ETD 3020	CSN 345	ETI 4671	ITE 485	EVR 5141	EVR 536
ETD 4525	IAT 415	ETI 4681	ITE 474	EVR 5236	EVR 511
ETD 4526	IAT 416	ETI 4683	ITE 422C	EVR 5907	EVR 591
ETE 3030	EET 300C	ETI 4690	ITE 410	EVR 5935	EVR 581
ETE 3030	EET 313C	ETI 4691	ITE 490	EVR 5936	EVR 512
ETE 3034	EET 310	ETI 4708	ITE 450	EVS 3215	EVS 350C
ETE 3101	EET 312	ETI 4905	ITE 495	EVS 3219	EVS 356C
ETE 3121	EET 316	ETM 3312	MET 310	EVS 3264	EVS 352C
ETE 3124	EET 329	ETM 3510	MET 362C	EVS 3360	EVS 310C
ETE 3142	EET 328	ETM 3801	MET 353C	EVS 3420	EPR 325C
ETE 3323	EET 320	ETM 4205	MET 459C	EVS 3428	EPR 327C
ETE 3421	EET 340	ETM 4221	MET 470C	EVS 3440	ETS 300C
ETE 3422	EET 342	ETM 4225	MET 460C	EVS 3601	EPR 320C
ETE 3526	EET 318	ETM 4235	MET 461C	EVS 4164	EAS 401C
ETE 3565	EET 317C	ETM 4407	IAT 417C	EVS 4164	EAS 401L
ETE 3620	COT 300	ETM 4408	IAT 422C	EVS 4233	EVS 450C
ETE 3650	COT 302	ETM 4511	MET 462C	EVS 4234	EVS 451C
ETE 3661	COT 304	ETM 4643	MET 471C	EVS 4463	EVS 455C
ETE 4123	EET 428	ETM 4720	MET 463C	EVS 4905	EVS 495C
ETE 4161	EET 430	ETM 4750	MET 464C	EVS 4930	EVS 497C
ETE 4170	EET 466	ETM 4752	MET 465C	EVS 5218	EVS 554C
ETE 4324	EET 420	ETM 4823	IAT 409C	EVS 5235	EVS 552C
ETE 4325	EET 422	EUH 3100	HIS 304	EVS 5242	EVS 550C
ETE 4426	EET 440	EUH 3142	HIS 313	EVS 5261	EVS 558
ETE 4562	IAT 418	EUH 3186	HIS 309	EVS 5266	EVS 558C
ETE 4565	EET 415	EUH 3203	HIS 339	EVS 5267	EVS 559C
ETE 4567	EET 425C	EUH 3420	HIS 305	EVS 5267	EVS 559
ETE 4621	COT 404	EUH 3452	HIS 316	EVS 5268	EVS 556C
ETE 4665	EET 468	EUH 3460	HIS 317	EVS 5361	EVS 512C
ETE 4669	COT 406	EUH 3570	HIS 340	EVS 5362	EVS 513C
ETG 3502	CSN 351	EUH 3576	HIS 344	EVS 5369	EVS 510C
ETG 3510	MET 351	EUH 3601	HIS 337	EVS 5421	EVS 520C
ETG 3520	CSN 352L	EUH 3611	HIS 338	EVS 5425	EVS 524C
ETG 3530	CSN 352	EUH 4121	HIS 402	EVS 5426	EVS 525C
ETG 3949	COE 340C	EUH 4123	HIS 403	EVS 5682	EVS 522C
ETG 4905	CSN 495	EUH 4187	HIS 465	EVS 5741	EVS 518C
ETG 4905	ENT 495	EUH 4187	HIS 466	EVS 5905	ETS 595C
ETG 4905	IAT 495	EUH 4187	HIS 467	EVS 5930	ETS 597C
ETG 4930	CSN 497	EUH 4187	HIS 468	EVS 6050	EUS 649C
ETG 4930	ENT 497	EUH 4187	HIS 469	EVS 6051	EUS 650C

Cross Reference — Statewide To FIU

# Cross Reference — Statewide To FIU

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
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	EVS 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
EVT 4280	EVO 408C	FIN 5515	FIN 508	FRE 3000	MOL 311
EVT 4365	EVO 409C	FIN 5605	FIN 555	FRE 3120	FRE 301
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
EVT 4990	EVO 412C	FIN 6325	FIN 618	FRE 3270	FRE 399
EVT 5067	EVO 516	FIN 6426	FIN 605	FRE 3415	FRE 327
EVT 5078	EVO 509	FIN 6428	MBA 635	FRE 3420	FRE 325
EVT 5168	EVO 507	FIN 6436	FIN 640	FRE 3421	FRE 326
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
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
EVT 6760	EVO 616	FIN 6 36	FIN 697	FRE 4470	FRE 499
EVT 6925	EVO 697C	FLE 4151	EEL 451	FRE 4501	FRE 460
EVT 6930	EVO 696	FLE 4375	EDS 407	FRE 4562	FRE 479C
EVT 6946	EVO 695C	FLE 4823	FRE 478C	FRE 4791	FRE 475C
EXP 3304	PSY 361	FLE 4870	EEL 454	FRE 4800	FRE 476C
EXP 3652	PSY 341	FLE 4871	EEL 453	FRE 4935	FRE 455
EXP 4204	PSY 441	FLE 4873	SPA 478C	FRE 5060	FRE 501
EXP 4404	PSY 449	FOL 3000	MOL 311	FRE 5061	FRE 502
EXP 4605	PSY 442	FOL 3732	MOL 337	FRE 5416	FRE 527
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	FRE 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

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
FRW 4930	FRE 497	GLY 4300	EAS 414L	HEE 6551	HEE 551
FRW 5150	FRE 510C	GLY 4401	EAS 421C	HEE 6915	HEE 605
FRW 5395	FRE 506	GLY 4401	EAS 421L	HEE 6937	HEE 696
FRW 5934	FRE 515	GLY 4450	EAS 412	HEE 6943	HEE 607
FRW 5938	FRE 570	GLY 4555	EAS 471	HEE 4001	HED 407
FSS 3215	DIN 310	GLY 4555	EAS 471L	HES 4160	HED 411
FSS 3221	HRM 310	GLY 4650	EAS 461	HES 4303	HED 405
FSS 3232	HRM 309	GLY 4650	EAS 461L	HES 4432	ITE 460C
FSS 3234	HRM 311	GLY 4730	EAS 432	HES 4940	HED 425
FSS 3241	HRM 314	GLY 4730	EAS 432L	HES 5205	HED 505
FSS 3243	HRM 318	GLY 4791	EAS 481	HES 5326	HED 507
FSS 3252	HRM 313	GLY 4792	EAS 496	HES 5327	HED 506
FSS 3272	HRM 317	GYL 5620	EAS 561	HES 5908	HED 595
FSS 3316	DIN 309L	GLY 5793	EAS 501	HES 6928	HED 697
FSS 4105	HRM 415	GLY 5816	EAS 520	HES 6943	HED 695
FSS 4245	HRM 418			HFT 3000	HRM 326
FSS 4315	HRM 410	HCA 4111	HCM 414	HFT 3203	HRM 330
FSS 4333	HRM 411	HCA 4203	HCM 418	HFT 3263	HRM 316
FSS 4431	HRM 446	HCA 4710	HCM 413	HFT 3313	HRM 339
FSS 4614	HRM 435	HCA 4711	HCM 419	HFT 3323	HRM 340
FSS 5361	HRM 536	HCA 5135	HCM 523	HFT 3343	HRM 341
FSS 6365	HRM 680	HCA 5504	HSM 502	HFT 3403	HRM 301
FSS 6452	HRM 606	HCA 5505	HCM 517	HFT 3413	HRM 361C
FSS 6834	HRM 675	HCA 5611	HSM 515	HFT 3423	HRM 360
		HCA 6101	HCM 689	HFT 3434	HRM 321
GEA 3000	INR 334	HCA 6113	HSM 682	HFT 3453	HRM 320
GEA 3400	INR 362	HCA 6136	HCM 624	HFT 3503	HRM 331
GEA 3554	INR 351	HCA 6201	HSM 688	HFT 3514	HRM 332
GEA 3600	INR 352	HCA 6301	HCM 670	HFT 3524	HRM 333
GEA 3630	INR 373	HCA 6302	HCM 671	HFT 3603	HRM 325
GEA 3710	INR 331	HCA 6316	HSM 683	HFT 3700	TTM 301
GEO 3122	EAS 311L	HCA 6392	HSM 697	HFT 3713	TTM 308
GEO 3200	EAS 311	HCA 6431	HCM 631C	HFT 3722	TTM 303
GEO 3510	EAS 320C	HCA 6508	HSM 684	HFT 3727	TTM 304
GEO 4114	EAS 430	HCA 6510	HCM 651	HFT 3733	TTM 306
GEO 5605	URB 510C	HCA 6691	HSM 687	HFT 3753	TTM 307
GER 3000	MOL 311	HCA 6701	HSM 693	HFT 3763	TTM 305
GER 3120	GER 301	HCA 6718	HSM 680	HFT 3793	TTM 312
GER 3121	GER 302	HCA 6719	HSM 681	HFT 3900	HRM 398
GER 3122	GER 303	HCA 6732	HSM 695	HFT 3905	HRM 399
GER 3200	GER 303	HCA 6811	HCM 696	HFT 3941	TTM 309
GER 3201	GER 304	HCA 6850	HCM 685	HFT 3941	HRM 328
GER 3300	GER 305C	HEB 3000	MOL 311	HFT 3945	HRM 329
GER 3420	GER 325	HEB 3110	HEB 301C	HFT 3945	TTM 310
GER 4905	GER 498C	HEB 3111	HEB 302C	HFT 4224	HRM 428
GER 4930	GER 497C	HEB 3112	HEB 303C	HFT 4234	HRM 425
GER 5060	GER 501C	HEB 3200	HEB 304	HFT 4274	HRM 480
GER 5061	GER 502C	HEB 3201	HEB 305	HFT 4276	HRM 427
GET 3100	GER 365C	HEE 3302	HEE 305	HFT 4293	HRM 419
GLY 3157	EAS 302	HEE 4104	HEE 405	HFT 4444	HRM 406
GLY 3200	EAS 312C	HEE 4941	HEE 425	HFT 4455	HRM 405
GLY 3200	EAS 313C	HEE 4944	HEE 406	HFT 4464	HRM 404
GLY 3200	EAS 312L	HEE 5335	HEE 505	HFT 4465	TTM 404
GLY 3220	EAS 313	HEE 5360	HEE 507C	HFT 4474	HRM 485
GLY 3220	EAS 313L	HEE 5361	HEE 516C	HFT 4484	HRM 421
GLY 3816	EAS 520L	HEE 5362	HEE 508C	HFT 4485	HRM 407
GLY 3850	EAS 305	HEE 5363	HEE 509C	HFT 4494	HRM 401
GLY 3850	EAS 305C	HEE 5364	HEE 515C	HFT 4574	HRM 481
GLY 3850	EAS 301L	HEE 5365	HEE 506C	HFT 4654	HRM 408
GLY 4190	EAS 495	HEE 5905	HEE 595C	HFT 4674	HRM 450
GLY 4240	EAS 440	HEE 5927	HEE 596C	HFT 4910	HRM 400
GLY 4300	EAS 414C	HEE 6126	HEE 606	HFT 5476	HRM 509

Cross Reference — Statewide To FIU

# Cross Reference — Statewide To FIU

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
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 6456	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
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
HFT 6916	HRM 630	HUM 3302	HUM 310	IND 3020	CSN 340
HFT 6946	HRM 628	HUM 3302	HUM 311	IND 3200	CSN 373
HHH 3151	CSN 329	HUM 3302	HUM 312	IND 3210	CSN 383
HHH 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
HIS 3473	HIS 350	HUM 3302	HUM 317	INP 4055	PSY 459
HIS 3930	HIS 397C	HUM 3302	HUM 318	INP 4203	PSY 451
HIS 3930	HIS 398C	HUM 3302	HUM 319	INP 5835	PSY 540
HIS 4908	HIS 499	HUM 3872	HUM 301-309	INR 3002	POS 306
HIS 4930	HIS 497C	HUM 3813	HUM 320-349	INR 3003	INR 301
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
HIS 5289	HIS 501	HUM 4450	HUM 420-499	INR 3043	INR 345
HIS 5289	HIS 502	HUM 4906	HUM 490	INR 3081	INR 312
HIS 5289	HIS 503	HUM 4906	HUM 491	INR 3214	INR 343
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
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	INR 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

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
INR 4408	INR 426C	LEI 3630	PRM 307	MAC 3132	MAS 317
INR 4408	INR 427C	LEI 4590	PRM 497	MAC 3233	MAS 321
INR 4408	INR 428C	LEI 4940	PRM 425	MAC 3411	MAS 301
INR 4408	INR 429C	LEI 5440	PRM 509	MAC 3412	MAS 302
INR 4905	INR 407	LEI 5510	PRM 505	MAC 3413	MAS 303
INR 4931	INR 462C	LEI 5595	PRM 550	MAD 3104	MAS 375
INR 4931	INR 463C	LEI 5907	PRM 595	MAD 3305	MAS 351
INR 4931	INR 464C	LEI 6922	PRM 695	MAD 3401	MAS 365
INR 4931	INR 465C	LIN 3010	MOL 309	MAE 4312	EEL 413
INR 4942	POS 474C	LIN 3200	MOL 307	MAE 4333	EDS 406
INR 5086	INR 572	LIN 3400	MOL 308	MAE 4810	MAS 401
INR 5414	POS 587C	LIN 3610	MOL 336	MAE 4811	MAS 402
INR 5906	INR 518	LIN 3642	ANT 338	MAE 5555	EEL 525
INR 6007	POS 617	LIN 4226	MOL 475	MAE 5870	MAE 587C
ISC 4041	CHE 409L	LIN 4333	MOL 476	MAE 6305	ECE 615
ISC 4911	EAS 492L	LIN 4400	ENG 460	MAE 6336	EDS 609
ISC 4911	EAS 491L	LIN 4418	MOL 478	MAE 6899	EDS 616
ITA 3000	MOL 311	LIN 4620	MOL 479	MAF 3210	SOC 363
ITA 3120	ITA 301	LIN 4701	PSY 412	MAF 4510	SOC 463
ITA 3121	MOL 302	LIN 4710	PSY 430	MAF 4511	SOC 464
ITA 3122	ITA 303	LIN 5625	MOL 579	MAN 3010	BUA 309
ITA 3200	ITA 304	LIN 5934	MOL 505	MAN 3503	BUA 302
ITA 3201	ITA 305	LIN 3333	ENG 380	MAN 3504	ITE 301C
ITA 3301	ITA 325C	LIN 3510	ENG 302	MAN 3701	BUA 314
ITA 3420	ITA 325	LIN 3510	ENG 300	MAN 3949	COE 330C
ITA 4905	ITA 498C	LIN 3510	ENG 304	MAN 4102	MAN 486C
ITA 4930	ITA 497C	LIT 3510	ENG 310	MAN 4120	MAN 461
ITT 3110	ITA 365C	LIT 3510	ENG 308	MAN 4130	BEP 430C
		LIT 3510	ENG 305	MAN 4151	MAN 456
		LIT 3510	ENG 301	MAN 4201	MAN 453
JOU 3100	COM 380	LIT 3510	ENG 309	MAN 4301	MAN 457
JOU 3109	COM 321	LIT 3510	ENG 307	MAN 4320	MAN 463
JOU 3200	COM 350	LIT 3510	ENG 306	MAN 4322	MAN 427
JOU 3202	COM 355	LIT 3510	ENG 303	MAN 4330	MAN 464
JOU 3209	COM 351	LIT 4203	ENG 441C	MAN 4401	MAN 454
JOU 3300	COM 320	LIT 4203	ENG 442C	MAN 4410	MAN 455
JOU 3600	COM 390	LIT 4203	ENG 443C	MAN 4521	MAN 430
JOU 4104	COM 480	LIT 4203	ENG 444C	MAN 4523	MAN 428
JOU 5806	COM 500	LIT 4290	ENG 440	MAN 4600	MAN 451
		LIT 4290	ENG 442	MAN 4610	MAN 452
LAE 4314	EEL 402	LIT 4290	ENG 443	MAN 4701	BUA 414
LAE 4464	EDS 417	LIT 4290	ENG 444	MAN 4711	BEP 402C
LAE 4810	EEL 452C	LIT 4290	ENG 441	MAN 4720	BUA 408
LAE 4942	EDS 425	LIT 4349	ENG 422	MAN 4722	BUA 496
LAE 4943	EDS 405	LIT 4401	ENG 450	MAN 4731	BEP 401
LAE 5414	EEL 518	LIT 4930	ENG 499	MAN 4741	BEP 403
LAE 6305	ECE 608	LIT 5542	ENG 545	MAN 4781	MAN 470
LAE 6339	EDS 614	LIT 5542	ENG 541	MAN 4781	ITE 470
LAE 6355	EEL 608	LIT 5542	ENG 547	MAN 4802	MAN 458
LAE 6935	EDS 639	LIT 5542	ENG 548	MAN 4810	MAN 407
LAH 3410	HIS 353	LIT 5542	ENG 550	MAN 4820	MAN 422
LAH 3482	HIS 352	LIT 5542	ENG 542	MAN 4905	MAN 493
LAH 4132	HIS 461	LIT 5542	ENG 544	MAN 4905	BEP 493C
LAH 4133	HIS 462	LIT 5542	ENG 549	MAN 4910	BEP 498C
LAH 4201	HIS 463	LIT 5542	ENG 543	MAN 4930	MAN 497
LAH 4300	HIS 464	LIT 5542	ENG 546	MAN 4930	MAN 462
LAH 4474	HIS 480	LIT 5934	ENG 599	MAN 4934	BEP 497C
LAH 4932	HIS 472	LIT 6934	ENG 699	MAN 4949	COE 430C
LAH 4932	HIS 473			MAN 5123	MAN 541
LAH 4932	HIS 474			MAN 5415	MAN 534
LEI 3437	PRM 375	MAA 4211	MAS 451	MAN 5830	MAN 550
LEI 3524	PRM 350	MAA 4212	MAS 452	MAN 5831	MAN 551
LEI 3542	PRM 305	MAA 4402	MAS 453		

Cross Reference — Statewide To FIU

Cross Reference — Statewide To FIU

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
MAN 5832	MAN 552	MAR 4453	MAR 423	MLS 4405	MDT 403
MAN 5930	MAN 558	MAR 4503	MAR 410	MLS 4405	MDT 403L
MAN 6112	MAN 661	MAR 4613	MAR 411	MLS 4406	MDT 413L
MAN 6121	MAN 660	MAR 4703	MAR 433	MLS 4460	MDT 483C
MAN 6124	MAN 641	MAR 4704	MAR 434	MLS 4465	MDT 423C
MAN 6205	MBA 617	MAR 4713	MAR 404	MLS 4467	MDT 493C
MAN 6211	MAN 662	MAR 4723	MAR 441	MLS 4535	MDT 402C
MAN 6213	MAN 663	MAR 4733	MAR 431	MLS 4535	MDT 402L
MAN 6311	MAN 642	MAR 4753	MAR 490	MLS 4536	MDT 412L
MAN 6321	MAN 644	MAR 4773	MAR 429	MLS 4555	MDT 422C
MAN 6331	MAN 645	MAR 4907	MAR 493	MLS 4557	MDT 492C
MAN 6351	MAN 643	MAR 4933	MAR 497	MLS 4625	MDT 404C
MAN 6403	MAN 651	MAR 5913	MAR 593	MLS 4625	MDT 404L
MAN 6405	MAN 650	MAR 5935	MAR 597	MLS 4626	MDT 414L
MAN 6411	MAN 652	MAR 6246	MAR 608	MLS 4630	MDT 481C
MAN 6501	MBA 637	MAR 6346	MAR 615	MLS 4635	MDT 424C
MAN 6529	MAN 639	MAR 6506	MAR 610	MLS 4637	MDT 494C
MAN 6601	MAN 653	MAR 6606	MAR 613	MLS 4700	MDT 484C
MAN 6603	MAN 671	MAR 6617	MAR 611C	MLS 4755	MDT 485
MAN 6604	MAN 672	MAR 6706	MAR 633	MLS 4820	MDT 451L
MAN 6713	MBA 615C	MAR 6707	MAR 634	MLS 4821	MDT 452L
MAN 6715	MAN 691	MAR 6716	MBA 636	MLS 5934	MDT 551C
MAN 6721	MBA 625	MAR 6717	MAR 690	MLS 5935	MDT 552C
MAN 6721	MBA 699C	MAR 6915	MAR 693	MLS 5936	MDT 553C
MAN 6725	MBA 616C	MAR 6936	MAR 697	MMC 4200	COM 410
MAN 6819	MAN 601	MAR 6971	MAR 695	MMC 4602	COM 400
MAN 6830	MBA 626C	MAS 3103	MAS 345	MMC 4945	COM 490
MAN 6833	MAN 618	MAS 4301	MAS 480	MRE 3110	MRE 321
MAN 6834	MAN 621	MAS 4302	MAS 481	MRE 3110	MRE 321L
MAN 6835	MAN 622	MAS 5215	MAS 580	MRE 3205	MRE 322
MAN 6836	MAN 630	MAT 4905	MAS 495	MRE 3205	MRE 322L
MAN 6895	MAN 619	MAT 4943	MAS 580	MRE 3800	MRE 371
MAN 6905	MAN 693	MCB 3013	BSC 310L	MRE 3810	MRE 372
MAN 6910	MAN 690	MCB 5505	BSC 511	MRE 4304	MRE 434
MAN 6930	MAN 694	MCB 5505L	BSC 511L	MRE 4312	MRE 422
MAN 6930	MAN 695	MET 4301	EAS 452C	MRE 4312	MRE 422L
MAN 6930	MAN 697	MET 4701	EVR 412C	MRE 4410	MRE 421
MAN 6974	MBA 695C	MET 4701	EAS 410C	MRE 4410	MRE 421L
MAP 3103	MAS 361	MGF 3113	MAS 309	MRE 4830	MRE 472
MAP 3104	MAS 362	MHF 4302	MAS 405	MRE 4831	MRE 471
MAP 3302	MAS 325	MIS 3310	MIL 302C	MRE 4835	MRE 940
MAP 4401	MAS 425	MIS 3423	MIL 301C	MTB 4371	MAS 419
MAP 4402	MAS 426	MIS 4120	MIL 401C	MTG 3212	MAS 318
MAP 5117	MAS 501	MIS 4410	MIL 402C	MTG 4302	MAS 465
MAP 6127	MAS 601	MKA 4392	MAR 494	MUC 3201	MUS 328
MAR 3023	BUA 303	MLS 3420	MDT 309L	MUC 4201	MUS 427
MAR 4054	MAR 451	MLS 3430	MDT 375C	MUC 4202	MUS 428
MAR 4103	MAR 416	MLS 3700	MDT 307C	MUE 3140	MUS 335
MAR 4153	MAR 405	MLS 3750	MDT 306C	MUE 3313	EEL 319
MAR 4154	MAR 406	MLS 4110	MDT 471C	MUE 4341	EMU 406C
MAR 4203	MAR 417	MLS 4120	MDT 473C	MUE 4940	EMU 425
MAR 4213	MAR 419	MLS 4130	MDT 472C	MUE 5907	EMU 595
MAR 4243	MAR 408	MLS 4140	MDT 474C	MUE 6305	ECE 617
MAR 4244	MAR 418	MLS 4150	MDT 425C	MUE 6316	EEL 617
MAR 4254	BUA 494	MLS 4160	MDT 495C	MUE 6349	EMU 616C
MAR 4203	MAR 413	MLS 4190	MDT 426C	MUE 6925	EMU 697C
MAR 4243	MAR 415	MLS 4306	MDT 401	MUE 6938	EMU 617C
MAR 4244	MAR 408	MLS 4306	MDT 401L	MUG 4101	MUS 435
MAR 4254	BUA 494	MLS 4307	MDT 411L	MUG 4201	MUS 437
MAR 4303	MAR 413	MLS 4320	MDT 480	MUG 4301	MUS 436
MAR 4343	MAR 415	MLS 4325	MDT 421C	MUG 5105	MUS 534
MAR 4344	MAR 414	MLS 4327	MDT 491C	MUH 3116	MUS 307

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
MUH 3211	MUS 315	NUR 4134	NUR 470	OTH 5600	OCT 503
MUH 3212	MUS 316	NUR 4134	NUR 470L	OTH 5760	OCT 501
MUH 3372	MUS 317	NUR 4335	NUR 410	OTH 5905	OCT 500
MUH 5375	MUS 517	NUR 4431	NUR 460		
MUL 3011	MUS 305	NUR 4431	NUR 460L	PAD 3003	POS 314
MUL 3012	MUS 306	NUR 4625	NUR 475C	PAD 3033	PAD 321
MUL 4400	MUS 417	NUR 4642	NUR 402	PAD 3034	PAD 312
MUL 4500	MUS 416	NUR 4910	NUR 435	PAD 3204	PAD 301
MUL 4661	MUS 415	NUR 4910	NUR 440	PAD 3413	PAD 310
MUM 4301	MUS 429	NUR 4955	NUR 403	PAD 3430	PAD 320
MUN 3140	MUP 317	NUU 3160	NUR 360	PAD 3702	PAD 305
MUN 3210	MUP 315	NUU 3210	NUR 365C	PAD 3803	POS 345C
MUN 3310	MUP 307	NUU 3211	NUR 365L	PAD 3834	PAD 325
MUN 3310	MUP 305	NUU 3220	NUR 370	PAD 4024	PAD 400
MUN 3460	MUP 327	NUU 3221	NUR 375L	PAD 4032	PAD 408
MUN 3710	MUP 325	NUU 3222	NUR 375C	PAD 4040	PAD 410
MUN 4210	MUP 415	NUU 3431	NUR 350	PAD 4103	PAD 402
MUN 4310	MUP 407	NUU 3440	NUR 380	PAD 4104	PAD 404
MUN 4310	MUP 405	NUU 4211	NUR 401C	PAD 4110	PAD 401
MUN 4460	MUP 427	NUU 4211	NUR 425L	PAD 4223	PAD 428
MUN 4460	MUP 417	NUU 4230	NUR 445C	PAD 4414	PAD 403
MUN 4710	MUP 425	NUU 4231	NUR 455C	PAD 4415	PAD 409
MUN 5215	MUP 515	NUU 4231	NUR 455L	PAD 4432	PAD 407
MUN 5315	MUP 507	NUU 4232	NUR 465C	PAD 4603	PAD 406
MUN 5315	MUP 505	NUU 4254	NUR 425	PAD 4804	PAD 405
MUN 5465	MUP 517	NUU 4330	NUR 406	PAD 4905	PAD 493
MUN 5465	MUP 527	NUU 4340	NUR 450	PAD 4944	POS 473C
MUN 5715	MUP 527	NUU 4340	NUR 450L	PAD 5041	PAD 520
MUS 3905	MUS 385	NUU 4410	NUR 404C	PAD 5427	PAD 561
MUS 3910	MUS 395	NUU 4423	NUR 420	PAD 5435	PAD 562
MUS 4910	MUS 495	NUU 4630	NUR 430	PAD 5443	PAD 564
MUS 5905	MUS 585			PAD 5840	PAD 523
MUS 5910	MUS 595	OCB 3010	BSC 308	PAD 6035	PAD 621
MUT 3031	MUS 325	OCB 5635	BSC 560	PAD 6042	PAD 622
MUT 3032	MUS 328	OCB 5702	EVS 557C	PAD 6043	PAD 663
MUT 3416	MUS 326	OCB 6631	EVS 615C	PAD 6053	PAD 600
MUT 3611	MUS 327	OCE 3014	EAS 331	PAD 6106	PAD 601
MUT 4311	MUS 425	ORH 3220	PRM 309	PAD 6109	PAD 643
MUT 4561	MUS 426	ORI 3000	THE 316	PAD 6227	PAD 602
MUT 5325	MUS 526	OTH 3000	OCT 300	PAD 6417	PAD 640
MVB 3334	MUP 335	OTH 3011	OCT 335	PAD 6437	PAD 641
MVB 4345	MUP 435	OTH 3120	OCT 315	PAD 6605	PAD 660
MVB 5355	MUP 535	OTH 3121	OCT 316	PAD 6701	PAD 630
MVK 3331	MUP 355	OTH 3123	TEY 320	PAD 6706	PAD 603
MVK 4341	MUP 455	OTH 3130	OCT 326C	PAD 6807	PAD 651
MVK 4343	MUP 455	OTH 3411	OCT 320	PAD 6816	PAD 650
MVK 5351	MUP 555	OTH 3421	OCT 330	PAD 6836	PAD 611
MVP 3331	MUP 345	OTH 3813	OCT 360	PAD 6838	PAD 610
MVP 4341	MUP 445	OTH 4190	OCT 432	PAD 6907	PAD 693C
MVP 5350	MUP 545	OTH 4210	OCT 450	PAD 6915	PAD 691
MVS 3116	MUP 366	OTH 4260	OCT 433C	PAD 6946	PAD 692
MVS 3216	MUP 367	OTH 4320	OCT 420	PCB 3023	BSC 302C
MVS 3332	MUP 365	OTH 4321	OCT 421	PCB 3023	BSC 302L
MVS 4343	MUP 465	OTH 4422	OCT 431	PCB 3043	BSC 360C
MVS 4975	MUS 485	OTH 4700	OCT 410	PCB 3233	BSC 376C
MVS 5353	MUP 565	OTH 4750	OCT 440	PCB 3510	BSC 342
MVV 3331	MUP 375	OTH 4850	OCT 460	PCB 3513	BSC 341C
MVV 4341	MUP 475	OTH 4851	OCT 461	PCB 3513	BSC 341
MVV 5351	MUP 575	OTH 4852	OCT 462	PCB 3702	BSC 372C
MVW 3333	MUP 385	OTH 4853	OCT 430	PCB 3702	BSC 372L
MVW 4345	MUP 485	OTH 5262	OCT 504	PCB 3703	BSC 350C
MVW 5353	MUP 585	OTH 5329	OCT 502	PCB 3703	BSC 374

Cross Reference — Statewide To FIU

# Cross Reference — Statewide To FIU

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
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 421C	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
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
PEO 4014	PHE 407	PHM 3500	PHI 327	PHY 4905	PHY 491L
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
PET 4230	PHE 411	PHM 4400	PHI 428	PHY 5936	PHY 591
PET 4430	PHE 408	PHP 3840	PHI 316	PHY 5937	PHY 592
PET 4435	PHE 412	PHP 4510	PHI 418C	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
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
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
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	PHI 319C	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

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
POS 4944	POS 471C	PUP 6007	POS 615	REL 3172	REL 306
POS 5606	POS 553C	PUR 4000	BEP 425	REL 3175	REL 350
POS 5909	POS 518C	PUR 4000	COM 425	REL 3210	REL 310
POS 5934	POS 572C	PUR 4800	BEP 426	REL 3224	REL 312
POS 6146	POS 618	PUR 4800	COM 426	REL 3250	REL 315
POS 6934	POS 683C	PUR 4934	BEP 427	REL 3252	REL 317
POT 3013	POS 311C	PUR 4934	COM 427	REL 3270	REL 341
POT 3054	POS 322C			REL 3300	REL 320
POT 3064	POS 333	QMB 3150	BUA 305	REL 3410	REL 301
POT 4055	POS 422C	QMB 4680	MAN 420	REL 3442	REL 304C
POT 4113	POS 455C	QMB 4700	MAN 410	REL 3464	REL 305
POT 4123	POS 408C	QMB 6603	MBA 607	REL 3510	REL 326
POT 4204	POS 427C	QMB 6805	MAN 605	REL 3532	REL 328
POT 4302	POS 444C	QMB 6845	MAN 620	REL 3540	REL 329
POT 4930	POS 466C	QMB 6855	MAN 606	REL 3600	REL 323
POT 5115	POS 556C	QMB 6875	MAN 611	REL 3665	REL 340
POT 5934	POS 566			REL 4183	REL 445
POT 6007	POS 607C	REA 2930	RG 290	REL 4185	REL 406
POW 4905	POR 498C	RED 4310	EEL 401	REL 4411	REL 409
POW 4930	POR 497C	RED 4311	EEL 403	REL 4420	REL 420
PPE 3003	PSY 360	RED 4325	EDS 401	REL 4430	REL 429
PPE 3502	PSY 340	RED 5447	ERE 503	REL 4461	REL 403
PPE 4105	PSY 463	RED 5908	ERE 595	REL 4463	REL 405
PPE 4123	PSY 488	RED 6155	EEL 609	REL 4481	REL 426
PPE 4325	PSY 469	RED 6247	ERE 628	REL 4485	REL 400
PPE 4514	PSY 464	RED 6305	ECE 609	REL 4493	REL 407
PPE 4604	PSY 460	RED 6337	ERE 606	REL 4496	REL 450
PPE 4930	PSY 462	RED 6515	ERE 602	REL 4808	REL 460
PRT 3401	POR 365C	RED 6546	ERE 601	REL 4910	REL 490
PSB 3523	PSY 343C	RED 6747	ERE 625	REL 4931	REL 495
PSB 4003	PSY 443	RED 6805	ERE 626	REL 5937	REL 591
PSB 5034	PSY 541	RED 6845	ERE 629	RMI 4015	INS 405
PSB 5035	PSY 542	RED 6925	ERE 697	RMI 4016	INS 418
PSC 3001	PHY 315	REE 3040	RES 390	RMI 4115	INS 407
PSC 3351	PHT 351	REE 3430	RES 391	RMI 4117	INS 415
PSC 3810	PSY 361	REE 4140	RES 407	RMI 4135	INS 417
PSY 3013	PSY 300	REE 4310	RES 409	RMI 4145	INS 416
PSY 3043	PSY 349	REE 4905	RES 493	RMI 4212	INS 412
PSY 3043	PSY 349L	REE 4930	RES 497	RMI 4213	INS 413
PSY 4693	PSY 448C	REE 5121	RES 515C	RMI 4220	INS 410
PSY 4900	PSY 490	REE 5200	RES 500C	RMI 4221	INS 411
PSY 4914	PSY 499	REE 5221	RES 507C	RMI 4305	INS 408
PSY 4916	PSY 492	REE 5710	RES 503C	RMI 4405	INS 409
PSY 4930	PSY 480	REE 5730	RES 511C	RMI 4500	INS 428
PSY 4931	PSY 498	REE 5750	RES 592C	RMI 4910	INS 493
PSY 4931	PSY 491	REE 5800	RES 513C	RMI 4935	INS 497
PSY 5206	PSY 507C	REE 6020	RES 671	RMI 6055	INS 600
PSY 5246	PSY 508C	REE 6021	RES 672	RMI 6912	INS 693
PSY 5930	PSY 564C	REE 6111	RES 670	RMI 6936	INS 697
PSY 5939	PSY 580	REE 6195	RES 686	RTV 3100	COM 385
PSY 6971	PSY 699L	REE 6295	RES 685	RTV 4205	COM 471
PUP 3004	POS 303	REE 6395	RES 689	RUS 3100	RUS 301C
PUP 3206	INR 325C	REE 6715	RES 687	RUS 3101	RUS 302C
PUP 4056	POS 417	REE 6795	RES 688	RUS 3102	RUS 303C
PUP 4203	POS 439C	REE 6820	RES 674		
PUP 4314	POS 463	REE 6906	RES 693	SCE 4310	EEL 414
PUP 4323	POS 465C	REE 6932	RES 697	SCE 4330	EDS 408
PUP 4404	POS 481	REE 6935	RES 675	SCE 6306	ECE 616
PUP 4520	POS 484	REE 6946	RES 695	SCE 6315	EEL 616
PUP 5934	POS 552	REL 3020	REL 300	SCE 6635	EDS 617
PAD 6005	PAD 604	REL 3160	REL 302	SCE 6933	EDS 649
PUP 6006	PAD 633	REL 3161	REL 303	SOC 3000	SOC 301

Cross Reference — Statewide To FIU

New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number	New Statewide Prefix & Number	Current FIU Prefix & Number
SOC 3001	SOC 302	SOC 4653	SOC 495	SOW 4193	SOW 480
SOC 3020	SOC 371	SOC 4705	SOC 472	SOW 4233	SOW 402
SOC 3110	SOC 323	SOC 4741	SOC 482C	SOW 4242	SOW 492
SOC 3130	SOC 322	SOC 4745	SOC 471	SOW 4322	SOW 407
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
SOC 3300	SOC 341	SOC 4835	SOC 422	SOW 4514	SOW 420
SOC 3380	SOC 331	SOC 4841	SOC 413	SOW 4523	SOW 409
SOC 3380	SOC 332	SOC 4842	SOC 412	SOW 4621	SOW 485
SOC 3380	SOC 333	SOC 4905	SOC 498C	SOW 4675	SOW 499
SOC 3380	SOC 334	SOC 4930	SOC 486	SOW 4905	SOW 495
SOC 3380	SOC 335	SOC 4931	SOC 497	SOW 4905	SOW 496
SOC 3402	SOC 381	SOC 4941	SOC 499	SOW 4949	COE 453
SOC 3424	SOC 342	SOC 5140	SOC 572	SOW 5217	SOW 596
SOC 3500	ASC 303	SOC 5255	SOC 587	SOW 5272	SOW 502C
SOC 3610	ASC 302	SOC 5261	SOC 581	SOW 5354	SOW 515
SOC 3820	SOC 312	SOC 5264	SOC 589	SOW 5435	SOW 501
SOC 3828	SOC 345C	SOC 5284	SOC 582	SOW 5436	SOW 511
SOC 3830	SOC 311	SOC 5316	SOC 590	SOW 5643	SOW 533
SOC 3850	SOC 313	SOC 5656	SOC 586	SOW 5684	SOW 530
SOC 4002	SOC 493	SOC 5658	SOC 511C	SOW 5914	SOW 500
SOC 4003	SOC 406	SOC 5909	SOC 591	SPA 3000	EEC 309
SOC 4004	SOC 414	SOC 5941	SOC 592	SPA 5401	PSY 531
SOC 4211	SOC 478	SOC 6651	SOC 511C	SPC 3600	SPE 305
SOC 4214	SOC 480C	SOP 3004	PSY 370	SPN 3000	MOL 311
SOC 4221	SOC 479	SOP 3724	PSY 321	SPN 3120	SPA 301
SOC 4230	SOC 477	SOP 3725	PSY 322	SPN 3121	SPA 302
SOC 4243	SOC 456	SOP 3742	PSY 310	SPN 3122	SPA 303
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
SOC 4301	SOC 441	SOP 4015	PSY 433	SPN 3420	SPA 325
SOC 4310	SOC 451	SOP 4214	PSY 472	SPN 3421	SPA 326
SOC 4320	SOC 452C	SOP 4215	PSY 479	SPN 3500	SPA 360
SOC 4331	SOC 436	SOP 4215	PSY 479L	SPN 3705	SPA 308C
SOC 4406	SOC 462	SOP 4444	PSY 482	SPN 3733	SPA 309C
SOC 4407	SOC 445C	SOP 4505	PSY 470	SPN 3780	SPA 307
SOC 4408	SOC 465C	SOP 4513	PSY 422	SPN 3820	SPA 336
SOC 4410	SOC 461	SOP 4522	PSY 473	SPN 3820	SPA 306
SOC 4423	SOC 442	SOP 4525	PSY 471	SPN 3840	SPA 335
SOC 4428	SOC 484C	SOP 4615	PSY 450	SPN 3905	SPA 398C
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
SOC 4475	SOC 485C	SOP 4712	PSY 410	SPN 4562	MOL 479
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
SOC 4490	SOC 435	SOW 3113	SOW 305	SPN 5060	SPA 501
SOC 4490	SOC 433	SOW 3203	SOW 301	SPN 5061	SPA 502
SOC 4504	SOC 402	SOW 3232	SOW 302	SPN 5416	SPA 527
SOC 4540	SOC 483	SOW 3313	SOW 307	SPN 5565	SPA 579C
SOC 4550	SOC 470C	SOW 3350	SOW 317	SPN 5930	SPA 505
SOC 4610	SOC 405C	SOW 3511	SOW 308	SPT 3800	SPA 328
SOC 4611	SOC 403	SOW 3522	SOW 309	SPT 3810	SPA 315
SOC 4613	SOC 467C	SOW 3703	SOW 306	SPT 4801	SPA 428
SOC 4620	SOC 481	SOW 3949	COE 353	SPT 5118	SPA 556C
SOC 4640	SOC 494	SOW 4125	SOW 405C	SPT 5802	SPA 528
SOC 4652	SOC 492	SOW 4133	SOW 405	SPW 3520	SPA 359

New Statewide Prefix & Number	Current FIU Prefix & Number
SPW 3580	SPA 355
SPW 3582	SPA 356
SPW 3584	SPA 357
SPW 3820	SPA 306
SPW 3930	SPA 397
SPW 4152	SPA 465C
SPW 4390	SPA 406
SPW 4590	SPA 405
SPW 4790	SPA 407
SPW 4810	SPA 438
SPW 4930	SPA 497
SPW 5155	SPA 510C
SPW 5391	SPA 506
SPW 5934	SPA 506
SPW 5936	SPA 570
SSE 4312	EEL 411
SSE 4384	EDS 409
SSE 6305	ECE 607
SSE 6355	EEL 607
SSE 6633	EDS 619
SSE 6939	EDS 629
SSI 3010	ANT 300C
SSI 3303	ASC 304
SSI 3949	COE 303
SSI 4125	BEP 404C
SSI 4949	COE 403
STA 3013	MAS 306C
STA 3122	MAS 307
STA 3123	MAS 308
STA 3132	MAS 304
STA 3133	MAS 305
STA 3161	MAS 322
STA 3163	MAS 335
STA 3164	MAS 336
STA 3182	MAS 338
STA 3321	MAS 331
STA 3322	MAS 332
STA 3905	MAS 395
STA 3930	MAS 398
STA 4502	MAS 437
STA 4603	MAS 471
STA 4604	MAS 472
STA 4605	ITE 477
STA 4605	MAN 477
STA 4605	MAS 477
STA 4664	MAS 435
STA 4905	MAS 495
STA 5036	MAS 535
STA 5206	MAS 541
STA 5207	MAS 542
STA 5236	MAS 543
STA 5237	MAS 544
STA 5446	MAS 534
STA 5447	MAS 522
STA 5606	MAS 571
STA 5676	MAS 531

New Statewide Prefix & Number	Current FIU Prefix & Number
STA 5677	MAS 532
STA 5707	MAS 508
STA 5826	MAS 523
STA 5906	MAS 595
THE 3000	THE 305
THE 3051	THE 328
THE 3071	THE 357
THE 3075	THE 358
THE 3510	THE 352
THE 3511	THE 353
THE 4076	THE 458
THE 4110	THE 451
THE 4111	THE 452
THE 4820	THE 427
THE 4916	THE 495
THE 4950	THE 485
THE 5916	THE 595C
THE 5940	THE 585C
TPA 3010	THE 345
TPA 3200	THE 335
TPA 3220	THE 336
TPA 3250	THE 337
TPA 4054	THE 488
TPA 4061	THE 445
TPA 4201	THE 435
TPA 4230	THE 431
TPA 4231	THE 432
TPA 4260	THE 487C
TPA 4400	THE 475
TPP 3100	THE 317
TPP 3310	THE 325
TPP 3700	THE 315
TPP 3730	THE 317
TPP 4230	THE 417C
TPP 4311	THE 425
TPP 4531	DAN 416
TPP 4600	THE 465
TRA 4012	TRA 419
TRA 4101	TRA 410
TRA 4203	TRA 417
TRA 4240	TRA 405
TRA 4320	TRA 492
TRA 4320	TRA 408
TRA 4410	TRA 441
TRA 4411	TRA 442
TRA 4412	TRA 443
TRA 4510	TRA 406
TRA 4906	TRA 493
TRA 4936	TRA 497
TRA 4941	TRA 495
TRA 5245	TRA 515
TRA 5401	TRA 507
TRA 5601	TRA 501
TRA 6035	TRA 600

New Statewide Prefix & Number	Current FIU Prefix & Number
TRA 6905	TRA 693
TRA 6936	TRA 697
URP 3000	EVS 340C
URP 3030	EVS 348C
URP 4006	URB 401C
URP 4011	EVS 449C
URP 4021	EVS 445C
URP 4023	URB 415C
URP 4027	URB 416C
URP 4055	URB 405C
URP 4905	URB 493C
URP 4930	URB 497C
URP 5057	URB 503
URP 5312	UPT 511
URP 5312	URB 511C
URP 5425	EPR 545C
URP 5881	URB 505C
URP 6222	UPT 615
URP 6423	EVS 642C
URP 6821	EUS 602
URP 6905	URB 693C
URP 6934	URB 697C
URS 5925	URB 585C
URS 6000	URB 600C
VIC 4300	COM 470
WOH 3244	HIS 336
WOH 3280	HIS 343
WOH 3283	HIS 342
ZOO 3203	BSC 331C
ZOO 3203	BSC 331L
ZOO 3423	BSC 334C
ZOO 3433	BSC 335C
ZOO 3513	BSC 348
ZOO 3553	BSC 337C
ZOO 3603	BSC 336C
ZOO 3603	BSC 336L
ZOO 3731	BSC 373
ZOO 3731	BSC 373L
ZOO 3733	BSC 355C
ZOO 3733	BSC 355L
ZOO 3733	BSC 355D
ZOO 3734	BSC 356C
ZOO 3734	BSC 356D
ZOO 3734	BSC 356L
ZOO 3743	BSC 357C
ZOO 3743	BSC 357L
ZOO 3753	BSC 338C
ZOO 3753	BSC 338L
ZOO 4543	BSC 489C
ZOO 5266	BSC 501
ZOO 5266	BSC 501L
ZOO 5334	BSC 420
ZOO 5745	BSC 550C

# COLLEGE OF ARTS AND SCIENCES

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

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.

UPPER DIVISION PROGRAM:

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>60</b>
<i>Core Courses:</i>	<b>20</b>
ANT 3086 Anthropological Theories	5
SOC 3610 Sociological Theories	5
SOC 3500 Research Methods	5
SSI 3303 Ethical Issues in Social Science Research	5
<i>AREA COURSES:</i> either Anthropology or Sociology	<b>40</b>
<i>Electives:</i> with the approval of the faculty advisor	<b>30</b>
	<hr/> <b>90</b>

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

ANT — Anthropology; SOC — Sociology; SSI — Social Sciences-Interdisciplinary.

**ANT 2224 TRIBAL ART AND AESTHETICS (5)**  
 This course deals with the social and cultural context and functions of art in preliterate societies as in sub-Saharan 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 (5)**  
 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 (5)**  
 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 Robert Redfield. Designed for non-majors; majors may enroll for elective credit only.

**ANT 3086 ANTHROPOLOGICAL THEORIES (5)**  
 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 (5)**  
 Early man in the Americas is examined through archaeological records.

**ANT 3241 MYTH, RITUAL AND MYSTICISM (5)**  
 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 (5)**  
 Comparative study of peasant societies with emphasis on the concepts of folk community, traditional culture, and modernization. Data on peasantry in Latin America and other culture areas will be reviewed.

**ANT 3262 AGRICULTURE AND SOCIETY (5)**  
 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 (5)**  
 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.

- ANT 3302 MALE AND FEMALE: SEX ROLES AND SEXUALITY (5)**  
 Cross-cultural ethnographic data will be utilized to examine the enculturation of sex roles, attitudes and behavior; cultural definitions of maleness and femaleness; and varieties of human sexual awareness and response.
- ANT 3402 ANTHROPOLOGY OF CONTEMPORARY SOCIETY (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 An examination of the biological bases for human adaption and sociocultural interaction.
- ANT 3542 HUMAN BIOLOGY AND CULTURAL BEHAVIOR (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 food consumption patterns.
- ANT 4211-4360-4361-4328 AREA STUDIES (5)**  
 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 staff.
- ANT 4242 STUDIES IN TRANSPERSONAL PHENOMENA (5)**  
 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 (5)**  
 Study of the theories, facts, and fantasies concerning witchcraft in western and non-western society, from socio-cultural, socio-historical and socio-psychological perspectives.
- ANT 4273 LAW AND CULTURE (5)**  
 A cross-cultural examination of the practical and theoretical relationships between the legal system and other aspects of culture and society.

- ANT 4305 EXPLORATIONS IN VISUAL ANTHROPOLOGY** (5)  
An examination of the use of film in anthropology, both as a method of ethnographic documentation and as a research technique for analyzing non-verbal modes of communication. Documentary films and cross-cultural data on paralanguage, kinesics, proxemics, and choreometrics will be reviewed and discussed.
- ANT 4306 THE THIRD WORLD** (5)  
An interdisciplinary, cross-cultural survey of the factors contributing to the emergence of the Third World. Significant political, economic, pan-national and pan-ethnic coalitions are analyzed.
- ANT 4312 AMERICAN INDIAN ETHNOLOGY** (5)  
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** (5)  
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** (5)  
Interdisciplinary study of Afro-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** (5)  
An interdisciplinary examination of the major social, cultural, economic and political factors contributing to the transformation from the Aztec empire to colonial society to modern Mexico.
- ANT 4328 MAYA CIVILIZATION** (5)  
A survey of the culture and intellectual achievements of the ancient Maya civilization of Mesoamerica. Course includes: history and social-political structure, archeology, agriculture and city planning, mathematics, hieroglyphics, astronomy, and calendars. No prerequisites.
- ANT 4329 RESEARCH IN MAYA CIVILIZATION** (5)  
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** (5)  
Native cultures of Mexico, Central and South America; the lowland hunters and gatherers and the pre-Columbian Inca and Aztec Empires; the impact of the Spanish conquest.
- ANT 4340 CULTURES OF THE CARIBBEAN** (5)  
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** (5)  
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** (5)  
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 pre-requisite.
- ANT 4405 CULTURE AND CONSCIOUSNESS** (5)  
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** (5)
- ANT 4433 PSYCHOLOGICAL ANTHROPOLOGY** (5)  
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** (5)  
The study of selected ethnic and cultural groups, with particular emphasis on patterns of interethnic and intercultural relationships. Minority groups studied may include Afro-Americans, American Indians, Chicanos, Cubans, women, senior citizens or prisoners.
- ANT 4452 THE RURAL POOR: MIGRANTS, SHARECROPPERS AND TENANT FARMERS** (5)  
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** (5)  
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** (5)  
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** (5)  
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 (5)**

Special courses dealing with advanced topics including: (1) folk medicine and ethnoscience; (2) nutritional anthropology; (3) anthropology and nursing; (4) medical anthropology and the elderly.

**ANT 4474 CULTURE SHOCK: THE YEAR 2000 (5)**

An investigation of future patterns of culture; an analysis of the concepts of culture lag, culture change, culture shock and future shock; a review of conceptual models for projecting the shape of post-industrial society to predict the relationship of man to his environment in the year 2000.

**ANT 4705 APPLIED ANTHROPOLOGY (5)**

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 (5)**

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 (VAR)**

Permission of instructor required.

**ANT 4930 TOPICS IN ANTHROPOLOGY (5)**

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 (5)**

Permission of the instructor required.

**ANT 5466 CULTURAL FACTORS IN HEALTH CARE DELIVERY (5)**

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 (5)**

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 (5)**

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 (VAR)**

Supervised readings and/or field research and training. May be repeated.

**ANT 5915 DIRECTED FIELD RESEARCH (Variable)**

Permission of instructor required.

**ANT 5937 COMMUNITY ACTION RESEARCH SEMINAR (5)**

Seminar will focus 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 (5)**

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 (5)**

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 (5)**

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 (5)**

An introduction to the problems and 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 Africa and Asia.

# BIOLOGICAL SCIENCES MAJOR

**Leon A. Cuervo**, Associate Professor  
and Chairperson

**Abraham M. Stein**, Professor

**Chun-fan Chen**, Associate Professor

**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:

		Quarter Hours
<i>Required courses:</i>		<b>24</b>
PCB 3513	Genetics	5
BCH 3033	Biochemistry	7
PCB 3023	Molecular Biology	7
PCB 4254	Developmental Biology	5
	Biological Sciences Electives*	<b>15</b>
CHM 3210**	(or a one year lecture and laboratory course in organic chemistry.)	<b>14</b>
<i>Mathematics:</i>	one course beyond analytical geometry	<b>5</b>
<i>Electives</i>		<b>32</b>
		<hr/>
		<b>90</b>

\*BSC 3023, BSC 3033, APB 3253, BOT 3823, PCB 3701, BSC 3913, BSC 4914 and BSC 6916 are not applicable to this requirement.

\*\*Recommended: CHM 3400 Physical Chemistry for the Life Sciences.

*Remark:* Attendance at departmental seminars for at least one quarter is required from all senior students.

## 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 no prerequisites 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; BOT—Botany; BSC—Introductory Biology; ENY—Entomology; MCB—Microbiology; OCB—Oceanography (Biological); PCB—Process Cell Biology; ZOO—Zoology.

**APB 3253 BIOLOGICAL BASIS OF HUMAN SEXUALITY (5)**

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 achieving healthy human sexual attitudes.

**APB 5933 APPLICATIONS OF COMPUTERS IN BIOLOGY (5)**

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 (5)**

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 (2)**

Laboratory to accompany BCH 3033.

**BCH 5315 BIOCHEMISTRY I (6)**

Chemical reactions and macromolecular properties of proteins, nucleic acids and polysaccharides. Genetic and evolutionary aspects of protein structure.

**BCH 5316 BIOCHEMISTRY II (6)**

Comparative biochemistry: metabolism and regulation of metabolism in microorganisms, plants and animals; mechanisms of enzyme reactions.

**BCH 6505 ENZYME CHEMISTRY (5)**

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 PLANTS (5)**

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

**BOT 3353L PLANT MORPHOLOGY LABORATORY (2)**

Laboratory to accompany BOT 3353.

**BOT 3503 INTRODUCTION TO PLANT PHYSIOLOGY (5)**

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 (5)**

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.

- BOT 3823 HORTICULTURE** (5)  
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** (5)  
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** (2)  
Laboratory to accompany BOT 3935.
- BOT 5575 PHOTOBIOLOGY** (5)  
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** (2)  
Laboratory to accompany BOT 5575.
- BOT 5665 TOPICS IN TROPICAL PLANT SCIENCE** (5)(SS)  
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** (2)  
Laboratory to accompany BOT 5665.
- BOT 6536 PLANT PHYSIOLOGY AND BIOCHEMISTRY** (5)  
Advanced topics emphasizing transport, plant hormones, tropisms, and photosynthesis. Lecture, conference, and laboratory.
- BSC 3023 HUMAN BIOLOGY** (5)  
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** (5)  
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** (2-5)  
An intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum.
- BSC 3934 TOPICS IN BIOLOGY** (2-5)  
An intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum.
- BSC 4914 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 4931 SENIOR SEMINAR** (2)  
An exploration of various research works in biological sciences.
- BSC 5931 GRADUATE SEMINAR** (2)  
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** (5)  
As BSC 3913.
- ENY 3004 GENERAL ENTOMOLOGY** (5)  
Taxonomy, development, morphology and distribution of insects. Ecology and economic problems. Lecture, conference, and laboratory.
- MCB 3013 GENERAL MICROBIOLOGY** (5)  
Introduction to the principles and techniques of microbiology; genetics, taxonomy, biochemistry and ecology of microorganisms.
- MCB 3013L GENERAL MICROBIOLOGY LABORATORY** (2)  
Introduction to the principles and techniques of microbiology, genetics, taxonomy, biochemistry, and ecology of microorganisms.
- MCB 5505 ADVANCED VIROLOGY** (5)  
Principles and methods of study of bacterial, plant, and animal viruses. Molecular aspects of viral development, virus pathogens, and carcinogens.
- MCB 5505L ADVANCED VIROLOGY LABORATORY** (5)  
Laboratory to accompany MCB 5505.
- OCB 3010 BIOLOGICAL OCEANOGRAPHY** (5)  
The basic aspects of biological, geological, chemical and physical oceanographic processes, as they relate to marine organisms. Lecture and demonstrations. Prerequisite: 8 semester hours of biology.

- OCB 5635 MARINE ECOLOGY (5)**  
Environmental variations in the oceans. Characteristic organisms and ecosystem analysis, with particular emphasis on shallow water habitat in the South Florida area. The course will emphasize fieldwork, projects, and systematic analyses of ecosystem components. Prerequisites: OCB 3010, ZOO 3023, and PCB 3033.
- OCB 5635L MARINE ECOLOGY LABORATORY (2)**  
Laboratory to accompany OCB 5635.
- PCB 3023 MOLECULAR BIOLOGY (5)**  
Nucleic acid chemistry and molecular genetics; biosynthesis of protein and nucleic acids. Core course required of majors in Biological Sciences. Prerequisite: BCH 3033 or equivalent.
- PCB 3023L MOLECULAR BIOLOGY LABORATORY (2)**  
Laboratory to accompany PCB 3023.
- PCB 3033 FUNDAMENTALS OF ECOLOGY (5)**  
The basic principles governing the interaction of organism and environment. Trophic structure and energetics of ecosystems; biogeochemical cycles; limits and controlling factors in organismic distribution and abundance; biological interactions; species diversity; evolution of populations and communities; the impact of man. Lecture and field trips. Prerequisites: One year of biology; basic chemistry.
- PCB 3183 MICROTECHNIQUE (5)**  
Laboratory techniques of preparation and microscopic examination of cells, tissues, and organs.
- PCB 3233 IMMUNOLOGY (5)**  
Course required in medical technology curriculum. Lecture and laboratory.
- PCB 3510 ISSUES IN GENETICS-recDNA AND IQ (5)**  
Examination of the principles of Mendelian and molecular genetics. These basic principles will then be employed in interpreting for discussion recent developments in recDNA engineering. Examination of the inheritance of quantitatively varying traits, and discussion of IQ inheritance.
- PCB 3513 GENETICS (5)**  
Mendelian inheritance and introduction to molecular genetics.
- PCB 3513L GENETICS LABORATORY (2)**  
To accompany PCB 3513.
- PCB 3701 FOUNDATIONS OF HUMAN PHYSIOLOGY (5)**  
Functional survey of the organ systems of the human body. Intended primarily for non-science majors.
- PCB 3702 INTERMEDIATE HUMAN PHYSIOLOGY (5)**  
Functions of the human body and the physico-chemical mechanisms responsible for each organ's function.
- PCB 3702L INTERMEDIATE HUMAN PHYSIOLOGY LAB (2)**  
Laboratory course demonstrating principles in PCB 3703.
- PCB 3703 HUMAN PHYSIOLOGY I (4-5)**  
Basic facts and concepts relating to the physiology of cells and nervous, muscular, and cardiovascular systems, with emphasis on regulatory mechanisms and abnormal physiology.
- PCB 3703L HUMAN PHYSIOLOGY LABORATORY I (1)**  
Laboratory course demonstrating principles in PCB 3703.
- PCB 3704 HUMAN PHYSIOLOGY II (4-5)**  
Physiology of respiratory, gastrointestinal, excretory, endocrine, and reproductive systems. Continuation of PCB 3703.
- PCB 3704L HUMAN PHYSIOLOGY LABORATORY II (1)**  
To accompany PCB 3704.
- PCB 3873 BIOLOGICAL FOUNDATIONS OF BEHAVIOR (5)**  
Biological bases of behavior, emphasizing neural and hormonal mechanisms of integrated behavior. Lecture, conference, library or laboratory projects.
- PCB 4024 CELL BIOLOGY (5)**  
Structure and function of cellular organelles.
- PCB 4254 DEVELOPMENTAL BIOLOGY (5)**  
Comprehensive survey of principles of development, and critical analysis of methods used to study these problems. Core course required of majors in Biological Sciences. Prerequisite: PCB 3023.
- PCB 4254L EXPERIMENTAL BIOLOGY (2)**  
Laboratory techniques used in biological research. The specific techniques covered will depend on the field of work of the instructor responsible for the course during a given quarter. May be repeated for credit under different instructors. Prerequisite: Permission of the instructor.
- PCB 4701 HUMAN SYSTEMIC PHYSIOLOGY (5)**  
Selected topics in mammalian and human physiology, with emphasis on topics of clinical significance.
- PCB 4724 COMPARATIVE PHYSIOLOGY I: REGULATION OF INTERNAL ENVIRONMENT (5)**  
Osmotic, gastrointestinal, metabolic, circulatory, and respiratory physiology. Prerequisites: General biology and organic chemistry.
- PCB 4724L COMPARATIVE PHYSIOLOGY LABORATORY I (2)**  
Laboratory course demonstrating principles in PCB 4724.
- PCB 4725 COMPARATIVE PHYSIOLOGY II: NEUROENDOCRINE PHYSIOLOGY (5)**  
Neuromuscular, sensory and endocrine physiology. Prerequisites: General biology and organic chemistry.

<b>PCB 4725L COMPARATIVE PHYSIOLOGY LABORATORY II</b>	<b>(2)</b>
Laboratory course demonstrating principles in PCB 4725.	
<b>PCB 4754 INVERTEBRATE PHYSIOLOGY</b>	<b>(5)</b>
Lectures treating functional processes in invertebrates, from the standpoint of adaptation to their environment and specialization in evolution. Prerequisites: General Biology, organic chemistry, invertebrate zoology.	
<b>PCB 4754L INVERTEBRATE PHYSIOLOGY LABORATORY</b>	<b>(2)</b>
Laboratory study to follow or accompany PCB 4754.	
<b>PCB 5205 CELL PHYSIOLOGY AND BIOPHYSICS</b>	<b>(5)</b>
Fundamental biophysical properties of membranes; transport of water and solutes across biological membranes; passive and active electrical phenomena in membrane systems. Biochemistry and biophysics of contractive mechanisms. Transfer of information from cell to cell. Bioluminescence. Effects of radiation on macromolecules. Prerequisites: BCH 3033, PCB 3023, CHM 3400 or CHEM 3410 and CHM 3411.	
<b>PCB 5259 TOPICS IN DEVELOPMENTAL BIOLOGY</b>	<b>(5)</b>
Molecular and cellular mechanisms in the development of plants and animals.	
<b>PCB 5615 MOLECULAR AND ORGANISMAL EVOLUTION</b>	<b>(5)</b>
The evolutionary relationships among nucleotides and proteins, as well as the processes which yield these relationships, are examined. The possible molecular events leading to speciation will then be considered.	
<b>PCB 5835 NEUROPHYSIOLOGY</b>	<b>(5)</b>
Comparative neurophysiology; physico-chemical mechanisms of resting and action potentials; synaptic transmission; neural coding and integration; sensory-motor function and neurophysiological basis of behavior.	
<b>PCB 5835L NEUROPHYSIOLOGY LABORATORY</b>	<b>(2)</b>
Laboratory course demonstrating principles of PCB 5835.	
<b>ZOO 3203 THE INVERTEBRATES</b>	<b>(5)</b>
Taxonomy, anatomy, development, physiology, and ecology of major invertebrate phyla, excluding insects. Emphasis on marine invertebrates.	
<b>ZOO 3203L THE INVERTEBRATES LABORATORY</b>	<b>(2)</b>
Laboratory to accompany ZOO 3023.	
<b>ZOO 3423 AMPHIBIANS AND REPTILES</b>	<b>(5)</b>
Comparative studies in distribution, development, anatomy, and physiology of amphibians and reptiles. Lecture, conference, field trips, and laboratory.	
<b>ZOO 3433 BIRDS AND MAMMALS</b>	<b>(5)</b>
Taxonomy, distribution, and natural history of birds and mammals. Lecture, conference, field trips, and laboratory.	
<b>ZOO 3513 ETHOLOGY</b>	<b>(5)</b>
The course is designed to introduce the student to the biological basis of behavior, and to the ecological and evolutionary consequences of various behaviors.	
<b>ZOO 3553 TOPICS IN MARINE BIOLOGY</b>	<b>(5)</b>
Selected problems in the biology of marine organisms. Lecture and field trips.	
<b>ZOO 3603 EMBRYOLOGY</b>	<b>(5)</b>
Animal morphogenesis.	
<b>ZOO 3603L EMBRYOLOGY LABORATORY</b>	<b>(2)</b>
<b>ZOO 3731 HUMAN ANATOMY</b>	<b>(5)</b>
Survey of organ systems of the human body.	
<b>ZOO 3731L HUMAN ANATOMY DEMONSTRATION</b>	<b>(1)</b>
Demonstrations of the prosected human cadaver.	
<b>ZOO 3733 HUMAN GROSS ANATOMY I</b>	<b>(4-5)</b>
Structure and function of various tissues, organs, and organ systems of the human body.	
<b>ZOO 3733L HUMAN GROSS ANATOMY LABORATORY</b>	<b>(2)</b>
Dissection of human cadaver material, to reveal the relationships of the various organ systems of the body.	
<b>ZOO 3733L HUMAN GROSS ANATOMY DEMONSTRATIONS</b>	<b>(1)</b>
Demonstrations of the prosected human cadaver.	
<b>ZOO 3734 HUMAN GROSS ANATOMY II</b>	<b>(4-5)</b>
Continuation of ZOO 3733. Prerequisite Zoo 3733.	
<b>ZOO 3734L HUMAN GROSS ANATOMY LABORATORY II</b>	<b>(2)</b>
Continuation of ZOO 3733L. Prerequisites: ZOO 3733 and 3733L.	
<b>ZOO 3734L HUMAN GROSS ANATOMY DEMONSTRATIONS</b>	<b>(1)</b>
Continuation of ZOO 3733L. Prerequisites: ZOO 3733 and 3733L.	
<b>ZOO 3753 HISTOLOGY</b>	<b>(5)</b>
Microscopic anatomy of cells, tissues and organs.	
<b>ZOO 3753L HISTOLOGY LABORATORY</b>	<b>(2)</b>
<b>ZOO 3834 NEUROSCIENCE</b>	<b>(4-6)</b>
Structure and function of the human nervous system. Prerequisites: One course in physiology, plus ZOO 3733 and 3734.	

- ZOO 3834L NEUROSCIENCE LABORATORY** (2)  
Dissection and demonstration of the various parts of the human brain.
- ZOO 4334 PRINCIPLES OF SYSTEMATIC ZOOLOGY** (5)  
A practical and theoretical approach to evolutionary zoology. Prerequisite: 8 semester hours of biology or zoology.
- ZOO 5265 BIOLOGY OF CRUSTACEANS** (5)  
Morphology, physiology, systematics, and evolution of crustaceans.
- ZOO 5265L BIOLOGY OF CRUSTACEANS LABORATORY** (3)  
Comprehensive laboratory study of the comparative and functional morphology of crustaceans.
- ZOO 5335 SYSTEMATIC ZOOLOGY** (5)  
A practical and theoretical approach to evolutionary zoology. Prerequisite: 8 semester hours of biology or zoology.
- ZOO 5745 ADVANCED NEUROANATOMY** (5)  
In-depth knowledge of the embryonic development, structure and function of the human nervous system, with a great deal of clinical consideration.

## ECONOMICS MAJOR

- D. Babatunde Thomas, Associate Professor and Chairperson**  
**Mira Wilkins, Professor**  
**Raul Moncarz, Associate Professor**  
**Thomas J. Casey, Jr., Associate Professor**  
**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:

		<i>Quarter Hours</i>
<i>Major Required Courses:</i>		<b>45-60</b>
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 <i>cannot</i> be included in this grouping.		
<i>Electives:</i>		<b>30-40</b>

**90**

*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.

		<i>Quarter Hours</i>
<i>Minor Required Courses:</i>		<b>20</b>
ECO 3101	Theory of Price	
	or	

ECO 3203	Aggregate Economic Analysis	5
	Additional Economics Courses*	15
*ECO 3003, ECO 3040, or ECO 3432 <i>cannot</i> be included in this grouping.		

20

*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 (5)

Consumer behavior; advertising and other influences affecting demand. Patterns of consumer expenditure; effects of public policy on family incomes and consumption 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)

Analysis 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 (5)

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 (5)

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 (5)

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 (5)

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.

#### ECO 4504 PUBLIC CHOICE AND THE PUBLIC FINANCES (5) (W)

Analysis of administrative and legislative decisions applicable to public goods and services; government expenditure policy; sources of revenue; public credit; fiscal policy; principles and methods of taxation and financial administration. Recommended preparation: ECO 3101.

- ECO 4603 ORIGINS OF INDUSTRIALIZATION (5)**  
The transformation of modern society. The earliest industrial revolution in England, 1750-1850, and its impact on the European continent.
- ECO 4622 ECONOMIC DEVELOPMENT OF THE UNITED STATES (5)**  
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 (5)**  
The growth of American business from 1880 to present; integration, diversification, and foreign expansion. Business strategies and managerial structures.
- ECO 4632 EUROPEAN ECONOMIC HISTORY (5)**  
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 (5)**  
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 obtains a conception of how economic interdependence has developed.
- ECO 4703 INTERNATIONAL ECONOMICS (5)**  
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 (5)**  
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 (5)**  
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 (5) (W)**  
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 (5)**  
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 (5)**  
Poverty in the United States: its measurement and history. Theory of personal income distribution. Present and proposed policies to alleviate poverty.
- ECO 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 3303 INTRODUCTION TO ENVIRONMENTAL ECONOMICS** (5) (W)  
Economic principles applied to environmental problems. Relationship of market and nonmarket forces to environmental quality. Development of tools for policy analysis.
- ECP 3613 INTRODUCTION TO URBAN ECONOMICS** (5)  
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** (5)  
The spatial order of the economy. Systems of cities, industrial location patterns, regional land use, interregional income and trade, regional economic expansion, population and migration.
- ECP 4003 PROSPERITY, DEPRESSION AND INFLATION** (5)  
Historical analysis of the Great Depression, business cycles, inflation, and prosperity. Emphasis on the theories of 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** (5)  
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 of 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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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 industrialized 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** (5)  
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** (5) (W)  
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** (5)  
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.
- ECS 4014 THEORIES OF ECONOMIC PROGRESS** (5) (F)  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
Estudio de los problemas economicos de Ibero-America, con enfasis en los paises mas grandes. Estudio detallado de problemas de intervencion, dependencia, 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 (5) (S)**  
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 (5) (W)**  
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 (5) (W,SS)**  
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 (5)**  
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 (5)**  
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.

## 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.)

UPPER DIVISION PROGRAM:

Quarter Hours

Required Courses:

45

English

Electives:

45

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90

Students in the Teacher Preparation Program carry two majors — English and English Education. They must request admission to both programs. (Students 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** (5) (F,W,S,SS)  
An intermediate course in writing poetry. Admission requires consent of the instructor.

**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 grammar, 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** (5)  
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** (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** (5) (F,W,)  
Study of the sounds, vocabulary and sentence patterns of standard modern English. Other topics include meaning, social and regional dialects, language 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** (5)  
Discussion, with examples, of the development of cinematic art, from its European and American beginnings to its place as a major world art form.

**ENG 4141 STUDIES IN THE FILM** (5)  
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** (5)  
Practical study of syntax. Prerequisite: ENG 3500, or consent of the instructor.

- ENG 4574 BLACK ENGLISH.**
- ENG 4906 INDEPENDENT STUDY** (Variable) (F,W,S,SS)  
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 8th century to modern times. Prerequisite: ENG 3500, or consent of the instructor.
- ENG 5816 LITERARY CRITICISM AND SCHOLARSHIP** (5)  
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** (5) (S)  
Reading and informal dramatic interpretation of representative plays.
- ENL 4138 SHAKESPEARE: COMEDIES** (5) (F)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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 of students an opportunity to pursue special studies not otherwise offered. 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 offered. Requires consent of the Chairperson.

**LIT 6934 SPECIAL TOPICS****(Variable) (F,W,S,SS)**

A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. Requires consent of the Chairperson.

**MMC 4602 STRUCTURE AND FUNCTION OF MASS MEDIA****(5)**

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.

## ENVIRONMENTAL STUDIES

**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, Psychology**  
**Dr. U. Sayeed, Physical Sciences**  
**Dr. J. Sheldon, Physical Sciences**  
**Dr. K. Williams, Physical 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:**

<i>Required Courses:</i>		<b>45</b>
ANT 3403	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: 15**

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	Environmental Revitalization
DHE 3300	Human Ecology
PHR 4931	Technology and Human Values

POS 4154	Topics in Urban Politics: Urban and Environmental Planning
SOP 4712	Environmental Psychology
<i>International/Political Issues</i>	
INR 3043	Population and Society
INR 4044	World Population Problems
INR 4054	World Resources and World Order
POS 4933	Environmental Planning and Law
PUP 3206	International Law and the Environment

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

*Electives*

**30**

**90**

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 3122 - Introduction to Statistics.

UPPER DIVISION PROGRAM:

*Required Courses*

**47**

CHM 3120	Quantitative Analysis <i>or</i>	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 <i>or</i>	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	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	Aquatic Systems	5
MCB 3013	General Microbiology	7
OCB 3010	Biological Oceanography	5
OCB 5635	Marine Ecology	5
OCE 3014	Physical Oceanography	5
ZOO 3023	The Invertebrates	5

### *Terrestrial Ecology Courses*

BOT 3503	Introduction to Plant Physiology	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	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**

<b>ANT 3403 CULTURAL ECOLOGY</b>	<b>(5)</b>
<b>ANT 3263 WORLD FOOD SUPPLY</b>	<b>(5)</b>
<b>ANT 4031 ENVIRONMENTAL REVITALIZATION</b>	<b>(5)</b>

### **BIOLOGICAL SCIENCES**

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

MCB 3013L GENERAL MICROBIOLOGY LABORATORY	(2)
OCB 3010 BIOLOGICAL OCEANOGRAPHY	(5)
OCB 5635 MARINE ECOLOGY	(5)
PCB 3043 FUNDAMENTAL ECOLOGY	
PCB 4320 TERRESTRIAL ECOLOGY	(5)
PCB 4320L TERRESTRIAL ECOLOGY LABORATORY	(2)
PCB 5316 MARINE ECOLOGY LABORATORY	(2)
ZOO 3023 INVERTEBRATES	(5)
ZOO 3023L INVERTEBRATES LABORATORY	(2)
ZOO 3423 AMPHIBIANS AND REPTILES	(5)
ZOO 3433 BIRDS AND MAMMALS	(5)
ZOO 3513 ETHOLOGY	(5)

### ECONOMICS

ECP 3303 INTRODUCTION TO ENVIRONMENTAL ECONOMICS	(5)
ECP 4314 LAND AND RESOURCE ECONOMICS	(5)

### ENVIRONMENTAL STUDIES

EVR 3011 ENVIRONMENTAL SCIENCE I	(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)
EVR 5141 ENVIRONMENTAL NUCLEAR CHEMISTRY	(5)
EVR 5236 AIR POLLUTION DYNAMICS	(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 3120L 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

EVS 4164 APPLIED ENVIRONMENTAL GEOLOGY	(5)
EVS 4164L APPLIED ENVIRONMENTAL GEOLOGY LABORATORY	(1)

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)
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### 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 Professor*

**Darden Asbury Pyron**, *Assistant Professor*  
**Howard 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:* None

*Remark:* 6 semester hours of advanced history courses may be counted toward the upper division major.

#### UPPER DIVISION PROGRAM:

	<i>Quarter Hours</i>
<i>Required Course:</i>	
HIS 3001 Introduction to History	5
<i>Courses in the following areas:</i>	
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.	<b>45</b>
<i>Electives:</i>	<b>45</b>

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**90**

# 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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
An examination of major trends, forces and personalities that have shaped the recent American past. [3]
- AMH 3275 THE KENNEDY ERA (5)**  
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 (5)**  
An examination of the social and cultural history of 20th century America through its movies. [3]
- AMH 3331 AMERICAN INTELLECTUAL HISTORY I (5)**  
This course will trace the origins and development of the main ideas and intellectual themes of Anglo-American 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 (5)**  
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 (5)**  
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 (5)**  
This course will examine the personalities, policies and politics of American presidents from Theodore Roosevelt to the present. [3]
- AMH 3420 FLORIDA HISTORY (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
A history of the experience of working class people in the United States and of the trade union movement from colonial times to the present. [3]
- AMH 3560 HISTORY OF WOMEN IN THE UNITED STATES (5)**  
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 feminist movements and organizations. [3]
- AMH 3570 AFRO-AMERICAN HISTORY (5)**  
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 (5)**  
This course will cover the period characterized by "laissez faire" ideology, from Jackson to McKinley. It will focus 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 (5)**  
This course will cover the history of the US from the election of McKinley in 1896 to the Watergate crisis of the 1970s. [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 structure, politics and slavery. [3]

- AMH 4150 THE U.S. IN THE NATIONAL PERIOD, 1750-1830** (5)  
An examination of American history from the American Revolution through the Age of Jackson. This course will emphasize 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** (5)  
An examination of selected topics or themes in U.S. 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). [3]
- EDF 3521 EDUCATION IN HISTORY** (5)  
An examination of the concepts of childhood, and processes of social initiation in differing historical contexts.
- EUH 3100 THE ANCIENT NEAR EAST** (5)  
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** (5)  
A study of the development of humanism in Italy and Protestantism in Germany, and the impact of these new philosophies on Europe in the fourteenth, fifteenth and sixteenth centuries. [2]
- EUH 3186 HISTORY OF KING ARTHUR AND THE KNIGHTLY LEGEND** (5)  
A study of Arthurian romance from the 12th to the 15th 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** (5)  
An examination of the "radical century" which defined 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** (5)  
An examination of the society, politics and culture of Ancient Greece and Rome.
- EUH 3452 THE FRENCH REVOLUTION AND THE ENLIGHTENMENT** (5)  
An examination of the intellectual and social origins of the French Revolution, focusing upon the old regime in France, the ideas of Rousseau and the philosophies and traditions of social protest in the 18th century. [2]
- EUH 3460 GERMANY FROM CHARLEMAGNE TO HITLER** (5)  
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** (5)  
An overview of Russian History from the time of tribal Slavs until today. The course will focus especially on the changing conditions of the Russian peasantry and on the unique development of the Russian state. [2]
- EUH 3576 THE RUSSIAN REVOLUTION AND THE SOVIET UNION** (5)  
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** (5)  
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** (10)  
An examination of changes in the social and political structure of Europe through film, art and literature. 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** (5)  
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** (5)  
Europe from the twelfth 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** (5)  
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** (5)  
An examination of the major events and movements which signaled the beginning of modernization in Europe: the voyages of discovery, the new representations in art, and the rise and triumph of religious dissent. [2]
- EUH 4201 EARLY MODERN EUROPE 1650-1789** (5)  
An examination of European society as it developed between the English Civil War and the French Revolution. The consolidation of the "Old Regime." [2]

- EUH 4205 MODERN EUROPE, 1789-1900** (5)  
This course will examine 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** (5)  
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** (5)  
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** (5)  
Approaches to the study of the Western tradition. Required of all majors and those seeking certification to teach history.
- HIS 3244 HISTORY OF COMMUNISM** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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 15th and 16th centuries. [4]
- LAH 4133 COLONIAL LATIN AMERICA: THE MATURE PERIOD** (5)  
An examination of Colonial Latin America in the 17th and 18th 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** (5)  
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** (5)  
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, and leftist and rightist solutions. [4]
- LAH 4474 TOPICS IN CARIBBEAN HISTORY** (5)  
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]

**LAH 4932 - EDF 4521 - HIS 4306 TOPICS IN LATIN AMERICAN HISTORY (5)**

An examination of selected topics or themes in Latin American history. The themes will vary from quarter to quarter. With a change in theme, the course may be repeated. (The theme will announced in the yearly schedule). [4]

**WOH 3244 THE WORLD SINCE HITLER, STALIN AND ROOSEVELT (5)**

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 (5)**

A survey of the position of women in the major world civilizations. The course examines the position of women from the stone age to 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*

**Ramon Mendoza**, *Professor of Modern Languages*

The Humanities program at F.I.U.'s North Miami campus offers a well-structured, inter-disciplinary 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 social 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 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 contemporary world?

#### HUM 3872 PERSPECTIVES OF THE HUMANITIES

(1-20)

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

(1-30)

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 sub-cultures 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

(1-10)

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*

Thomas A. Breslin, *Assistant Professor*  
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.

UPPER DIVISION PROGRAM:

Major:

Quarter Hours

Required Courses

GEA 3000	World Regional Geography	15
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.

20

Other Requirements:

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)

10

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).

45

Minor:

Required Courses: Any five lecture courses

25

**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 (5)

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 (5)

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 (5)

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.

#### GEA 3554 POPULATION AND GEOGRAPHY OF THE SOVIET UNION (5)

An analysis of the U.S.S.R. in terms of its resources; economic development; and aspects of population change such as migration, urbanization, and nationality groups.

#### GEA 3600 POPULATION AND GEOGRAPHY OF AFRICA (5)

Introduction to the physical, cultural, and political geography of Africa. Emphasis on the evolution of independent states, and economic development.

#### GEA 3630 POPULATION AND GEOGRAPHY OF THE MIDDLE EAST (5)

Introduction to the physical, cultural, and political geography of the Middle East. Emphasis on population patterns, natural resources, and economic development.

- GEA 5200 TOPICS IN SOCIAL GEOGRAPHY (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
Examines selected world and regional issues and problems. Topics vary according to the instructor.
- INR 3214 INTERNATIONAL RELATIONS OF EUROPE (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
The course will explore language as the medium of national and international communication; the multiple and often conflicting roles of language as unifier and isolator of political and social entities.
- INR 4044 WORLD POPULATION PROBLEMS (5)**  
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 (5)**  
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 (5)**  
An examination of the forces 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 (5)**  
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.

- INR 4408 TOPICS IN INTERNATIONAL LAW (5)**  
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 (5)**  
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 (5)**  
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 of instructor.
- INR 4905 INDEPENDENT STUDY (VAR)**
- INR 4931 TOPICS IN INTERNATIONAL RELATIONS (5)**  
Varies according to the instructor.
- INR 5086 TOPICS IN INTERNATIONAL RELATIONS (5)**  
Varies according to the instructor.
- INR 5906 INDEPENDENT STUDY (VAR)**
- POS 4692 LAW AND THE PROCESS OF CHANGE (5)**  
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 (5)**  
Introduction to the growing body of international laws on environmental issues, with special emphasis on important cases. Recent attempts to coordinate and regulate activities affecting the global environment, with particular attention to the U.N. Environmental Agency.
- SOC 3949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES (5)**  
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 (5)**  
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 ten-hour 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: none.

Recommended courses: Arts and Sciences concentration recommended.

UPPER DIVISION PROGRAM:

Quarter Hours

Major:

Required courses:

55

Courses offered by any of the units of the College of Arts and Sciences, chosen in accordance with academic guidelines of the Program of Liberal Studies, to meet requirements in the four 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

(VAR)

(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

(VAR)

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

(5)

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 Chairperson

Robert C. Fisher, Professor

Malcolm H. Gotterer, Professor

Toby S. Berk, Associate Professor

John C. Comfort, Associate Professor

William T. Kraynek, Associate Professor

Anthony C. Shershin, Associate Professor

James F. Slifker, Associate Professor

Willie E. Williams, Associate Professor

Carlos W. Brain, Assistant Professor

Gauri L. Ghai, Assistant Professor

Michael R. Gross, Assistant Professor

Paulette Johnson, Assistant Professor

Linda M. Lawson, Assistant Professor

Jainendra K. Navlahka, Assistant Professor

Ralph P. Romanelli, Assistant Professor

Richard L. Rubin, Assistant Professor

Domitila Fox, Instructor

Carol Henley, Instructor

Ina Parks Howell, Instructor

Orlando Sauleda, Instructor

MATHEMATICS

LOCATION: Tamiami Campus Only

DEGREE: Bachelor of Science

**LOWER DIVISION PREPARATION**

*Required Courses:* Calculus including multivariable calculus; introductory course in computer programming; linear algebra; differential equations.

*Remarks:* If an entering mathematics 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); and MAP 3302 (Differential Equations).

**UPPER DIVISION PROGRAM:**

*Major:*

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>45</b>
MAS 4301 Algebraic Structures	5
MAA 4211-MAA 4212 Advanced Calculus	10
At least one of the following two term sequences:	
STA 3321-STA 3322 Introduction to Mathematical Statistics	10
MAP 4401-MAP 4402 Mathematical Methods in the Physical Sciences	10
MAP 3103-MAP 3104 Mathematical Models and Applications	10
MAS 4301-MAS 4302 Algebraic Structures	10
STA 5446-STA 5447 Probability Theory	10
Additional Mathematical Sciences courses	20 or 25
<i>Electives:</i>	<b>45</b>
	<b>90</b>

*Remarks:* (1) If STA 3321-STA 3322 is not completed, STA 3163 *must* be taken as a non-major elective. (2) The student must consult his or her advisor at the University to determine which Mathematical Science courses, in addition to required courses specified above, satisfy the requirements for a mathematics major. (3) The student whose interests are more directly in statistics or computer science should consult those programs of study below.

*Minor:*

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>35</b>
MAC 3411, MAC 3412, MAS 3413 Calculus I, II, III (unless previously taken)	15
Mathematics courses approved for the Mathematics Major program	20
	<b>35</b>

*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:

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>45</b>
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
<i>Electives:</i>	<b>45</b>
	<b>90</b>

*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:

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>20</b>
STA 3321 & STA 3322 Introduction to Mathematical Statistics I and II	10
STA 3163 & STA 3164 Introduction to Statistical Analysis I and II	10
	<b>20</b>

*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.

## 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 non-major 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:

	<i>Quarter Hours</i>
<i>Required Courses:</i>	
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
<i>or</i>		
STA 3163	Introduction to Statistical Analysis I	5
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 Analysis
MHF 4302	Mathematical Logic
COT 4320	Theory of Computations

*List (2)*

CDA 3110	Computer Hardware Fundamentals
CDA 4163	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

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90

*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:*

*Required Courses:*

*Quarter Hours*

25

COP 3112; * COP 3402; * or COP 3403:	Introduction to Computers I & II	10
COP 3515	Programming Methodology	5
<i>and</i>		
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

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25

\*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 multivariable 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 (Linear Algebra); and MAP 3302 (Differential Equations).

UPPER DIVISION PROGRAM:

Major:

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>45</b>
STA 3163-STA 3164 Introduction to Statistical Analysis	10
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	10
<i>or</i>	
MAA 4211-MAA 4212 Advanced Calculus	10
<i>Electives:</i>	<b>45</b>

Minor:

<i>Required Courses:</i>	<b>35</b>
MAC 3411, MAC 3412, MAC 3413 Calculus I, II, & III (Unless taken previously); and 20 credit hours of Mathematical Sciences Courses that have been approved for the Mathematics Major program	15  20
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>
	<b>35</b>

*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:

	<i>Quarter Hours</i>
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
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>
	<b>25</b>

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 (5) (S)

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.

- COP 3112 INTRODUCTION TO COMPUTERS I** (5) (F-W-S-SS)  
A course in the fundamentals of digital computer programming. The concept of an algorithm; flow charting; programming; testing and debugging. Numerical and non-numerical techniques. The syntax and semantics of FORTRAN IV.
- COP 3120 INTRODUCTION TO COBOL PROGRAMMING** (5) (F-W-S)  
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** (5) (S)  
An introduction to abstract machine theory, combinatorial systems, and computable functions. Topics include: finite-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 variables. 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 system. 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.

- MAC 3233 CALCULUS FOR MANAGEMENT AND SOCIAL SCIENCES** (5) (F-S)  
 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 integration 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** (5) (W-SS)  
 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** (5-5) (S-SS)  
 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** (5) (F)  
 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** (5) (S)  
 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.

- MAS 5215 NUMBER THEORY** (5) (SS)  
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 fractions, 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 offered.
- 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 for 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 Gödel 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** (5) (F)  
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, product 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 statistics 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 first course in statistics.
- STA 3182 STATISTICAL MODELS IN SCIENCE AND BUSINESS** (5) (S)  
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. Specific topics include: introduction to discrete and continuous probability distributions, transformation 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 first 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 conferences, assigned readings, and reports on independent investigations.

**STA 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.

**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 chi-square, 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 & II(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 experiments. 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 (5-5) (SS,F)**

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.

- STA 5677 RELIABILITY ENGINEERING II** (5) (F)  
 The course is designed for those interested in using probability models such as Markov matrices to analyze the reliability of systems. The use of transition matrices to represent the state of repairable and non-repairable systems will be stressed. Series and parallel constructed systems will be covered. Topics such as the reliability and availability of systems, average down time, required repairmen pool sizes, and number and composition of spare parts pools will be covered. Prerequisites: MAS 3103, and STA 5676.
- STA 5707 MULTIVARIATE ANALYSIS IN APPLIED PSYCHOLOGICAL RESEARCH** (4) (W)  
 Covers basic techniques of multivariate analysis, emphasizing the rationale and the 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.
- STA 5826 STOCHASTIC PROCESSES** (5) (F)  
 This course is intended to provide the student with the basic concepts of stochastic processes, and the use of such techniques in the analysis of systems. Subjects include: Markov Processes, queuing theory, renewal processes, birth and death processes, Poisson and Normal Processes. Applications to system reliability analysis, behavioral science, and natural sciences will be stressed. Prerequisite: STA 5447.
- STA 5906 INDEPENDENT STUDY** (VAR) (F,W,S,SS)  
 Individual conferences, assigned reading, and reports on independent investigation.

## MODERN LANGUAGE MAJORS

**Frances Aid**, Associate Professor  
 and Chairperson  
**James Crosby**, Professor  
**Yvonne Guers-Villate**, Professor  
**Ramon Mendoza**, Professor  
 (North Miami Campus)

**Florence Yudin**, Professor  
**Frederick Bouma**, Associate Professor  
**R. Reinaldo Sanchez**, Associate Professor  
**Maida Watson Espener**, Assistant Professor  
**Marcelle Welch**, Assistant Professor  
**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:

<i>Required Courses:</i> *	<i>Quarter Hours</i>
Foreign language	<b>45</b>
<i>Electives:</i> *	<b>45</b>
	<b>90</b>

\*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 before 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 training 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 (5)

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 (5)

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.

## ENGLISH AS A SECOND LANGUAGE

### ESL 3361 ENGLISH GRAMMAR REVIEW (VAR)

Review and practice of English grammatical patterns; emphasis on oral communication.

### ESL 4301 ADVANCED ORAL ENGLISH (VAR)

Intensive practice in pronunciation, vocabulary and oral communication skills.

## FOREIGN LANGUAGE: GENERAL

### FOL 3000 ELEMENTARY FOREIGN LANGUAGE CONVERSATION (VAR)

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 (5)

The common and distinctive romance features. Survey of linguistic geography and internal/external influences.

### FOL 3905 INDEPENDENT STUDY (5)

Project, field experience, readings, or apprenticeship.

### FOL 3930 SPECIAL TOPICS (5)

Readings and discussion of literary/linguistic topics to be determined by students and teacher.

### FOL 3955 FOREIGN STUDY (15)

Intermediate level. One quarter full-time credit in foreign residence and study. Individual cases will be evaluated for approval.

### FOL 4013 LANGUAGE SKILLS FOR PROFESSIONAL PERSONNEL (VAR)

The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

- FOL 4905 INDEPENDENT STUDY** (VAR)  
Project, field experience, readings, or research.
- FOL 4930 SPECIAL TOPICS** (5)  
Independent readings, research, or project.
- FOL 4935 SENIOR SEMINAR** (5)  
Topics and approach to be determined by students and instructor.
- FOL 4958 FOREIGN STUDY: ADVANCED LANGUAGE/LITERATURE** (15)  
Full-quarter credit for foreign residence and study/work. (Approval of Department required).
- FOL 5735 ROMANCE LINGUISTICS** (5)  
The common and distinctive romance features. Survey of linguistic geography and internal/external influences.
- FOL 5906 INDEPENDENT STUDY** (VAR)  
Project, field experience, readings, or research.
- FOT 3110 LITERATURE IN TRANSLATION** (5)  
Masterpieces of world literature in English. Comparative use of the original text. Discussion and interpretation.
- FOT 3800 TRANSLATION SKILLS** (5)  
Emphasis on basic principles and practice application.
- FOT 3810 CREATIVE WRITING/TRANSLATION** (5)  
Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.
- FOT 4130 EUROPEAN LITERATURE IN TRANSLATION** (5)  
For students proficient in more than one foreign language. Content and focus to be determined by student and teacher.
- FOT 4801 PROFESSIONAL TRANSLATION** (5)  
Techniques and resources for professional translation. Prerequisite: FOT 3800.
- FOT 5131 LITERATURE IN TRANSLATION** (5)  
Masterpieces of world literature. Open to students who are proficient in more than one language.
- FOT 5802 TRANSLATION ARTS** (5)  
Techniques of professional translation. Prerequisite: FOT 4801.
- FOW 3520 PROSE AND SOCIETY** (5)  
The dynamics of participation and alienation between prose writers and their environment.
- FOW 3540 BICULTURAL WRITINGS** (5)  
Experiment in linguistic pluralism. Content and focus to be determined by the international community.
- FOW 3580 INTELLECTUAL HISTORY** (5)  
The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.
- FOW 3582 LITERATURE OF REFORM** (5)  
The consciousness of change in verbal art.
- FOW 3584 LITERATURE OF REPRESSION** (5)  
The consciousness of constraints, their adoption and/or rejection in verbal art.
- FOW 4390 GENRE STUDIES** (5)  
Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).
- FOW 4590 CREATIVE MODES** (5)  
Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.
- FOW 4790 THE LITERARY GENERATION** (5)  
The real and apparent shared ideals of an artistic generation, its influence and range.
- FOW 4810 PROBLEMS IN READING AND INTERPRETATION** (5)  
The identification and appreciation of techniques for sensitive reading and discussion of literary texts.
- FOW 5395 GENRE STUDIES** (5)  
Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).
- FOW 5545 BICULTURAL WRITINGS** (5)  
Experiment in linguistic pluralism. Content and focus to be determined by the international community.
- FOW 5587 COMPARATIVE STUDIES** (5)  
Cross-over and distinctiveness in a multi-language problem, period, or esthetic.
- FOW 5934 SPECIAL TOPICS IN LANGUAGE/LITERATURE** (5)  
Content and objectives to be determined by students and teacher.
- FOW 5938 GRADUATE SEMINAR** (5)  
Topic and approach to be determined by students and instructor. (Approval of the Department required.)

## FRENCH

- FRE 3000 ELEMENTARY FRENCH 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.

- FRE 3120 BEGINNING FRENCH INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills.
- FRE 3121 BEGINNING FRENCH INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills.
- FRE 3122 BEGINNING FRENCH INSTRUCTION III** (5)  
Provides training in the acquisition and application of basic language skills.
- FRE 3200 INTERMEDIATE FRENCH INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- FRE 3201 INTERMEDIATE FRENCH INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- FRE 3270 FOREIGN STUDY** (15)  
Intermediate level. One quarter full-time credit for foreign residence and study. Individual cases will be evaluated for approval.
- FRE 3415 COMMUNICATION ARTS** (5)  
Oral interpretation and dramatic reading. Original and non-original texts 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** (5)  
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.
- FRE 3421 REVIEW GRAMMAR/Writing II** (5)  
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** (5)  
Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values.
- FRE 3700 INTRODUCTION TO GENERAL LINGUISTICS** (5)  
Examination and synthesis of the concepts and perspectives of major contributions to language theory.
- FRE 3705 APPLIED LINGUISTICS** (5)  
Examination of available linguistic materials for self-instruction. Problem solving in syntax and phonetics, through the application of modern/traditional methods.
- FRE 3780 PHONETICS** (5)  
The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity.
- FRE 3820 DIALECTOLOGY** (5)  
Definition and analysis. Problem-solving in dialect classification.
- FRE 3840 HISTORY OF THE LANGUAGE** (5)  
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, etc.).
- FRE 4470 FOREIGN STUDY: ADVANCED LANGUAGE/LITERATURE** (15)  
Full-quarter credit for foreign residence and study/work. (Approval of Department required.)
- FRE 4501 CIVILIZATION II** (5)  
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** (5)  
Readings and analysis of bilingual programs and binational goals.
- FRE 4791 CONTRASTIVE PHONOLOGY** (5)  
Contrasts in the sound systems of English and French.
- FRE 4800 CONTRASTIVE MORPHOLOGY** (5)  
Contrasts in the morphology and syntax of English and French.
- FRE 4935 SENIOR SEMINAR** (5)  
Topic and approach to be determined by students and instructor.
- FRE 5060 LANGUAGE FOR READING KNOWLEDGE** (5)  
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** (5)  
Emphasis on translation of materials from the student's field of specialization. Prerequisite: FRE 5060, or the equivalent.
- FRE 5416 COMMUNICATION ARTS** (5)  
Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.
- FRE 5565 STUDIES IN BI-LINGUALISM** (5)  
Readings and analysis of bi-lingual programs and binational goals.

- FRE 5730 SPECIAL TOPICS IN LINGUISTICS** (5)  
Content to be determined by students and instructor. (Approval of Department required.)
- FRE 5908 INDEPENDENT STUDY** (VAR)  
Project, field experience, readings, or research.
- FRT 3110 LITERATURE IN TRANSLATION** (5)  
Masterpieces of French literature in English. Comparative use of the original text. Discussion and interpretation.
- FRT 3800 TRANSLATION SKILLS** (5)  
Emphasis on basic principles and practice application.
- FRT 3810 CREATIVE WRITING/TRANSLATION** (5)  
Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.
- FRT 4801 PROFESSIONAL TRANSLATION** (5)  
Techniques and resources for professional translation. Prerequisite: FRT 3810.
- FRT 5118 LITERATURE IN TRANSLATION** (5)  
Masterpieces of world literature. Open to students who are proficient in more than one language.
- FRT 5802 TRANSLATION ARTS** (5)  
Techniques of professional translation. Prerequisite: FRT 4801.
- FRW 3520 PROSE AND SOCIETY** (5)  
The dynamics of participation and alienation between prose writers and their environment.
- FRW 3580 INTELLECTUAL HISTORY** (5)  
The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.
- FRW 3582 LITERATURE OF REFORM** (5)  
The consciousness of change in verbal art.
- FRW 3584 LITERATURE OF REPRESSION** (5)  
The consciousness of constraints, their adoption and/or rejection in verbal art.
- FRW 3820 STYLISTICS/EXPLICATION DE TEXTE** (5)  
Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.
- FRW 3905 INDEPENDENT STUDY** (5)  
Project, field experience, readings, or apprenticeship.
- FRW 3930 SPECIAL TOPICS** (5)  
Readings and discussion of literary/linguistic topics to be determined by students and instructor.
- FRW 4152 EUROPEAN LITERATURE IN TRANSLATION** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
Independent readings, research, or project.
- FRW 5150 COMPARATIVE STUDIES** (5)  
Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.
- FRW 5395 GENRE STUDIES** (5)  
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 5934 SPECIAL TOPICS IN LANGUAGE/LITERATURE** (5)  
Content and objectives to be determined by student and instructor.
- FRW 5938 GRADUATE SEMINAR** (5)  
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 students with specific professional or leisure interests. This course is not part of a series. No prerequisites.
- GER 3120 BEGINNING GERMAN INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills.
- GER 3121 BEGINNING GERMAN INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills.

- GER 3122 BEGINNING GERMAN INSTRUCTION III** (5)  
Provides training in the acquisition and application of basic language skills.
- GER 3200 INTERMEDIATE GERMAN INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- GER 3201 INTERMEDIATE GERMAN INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- GER 3420 REVIEW GRAMMAR/WRITING I** (5)  
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.
- GER 4905 INDEPENDENT STUDY** (VAR)  
Project, field experience, readings, or research.
- GER 4930 SPECIAL TOPICS** (5)  
Independent readings, research, or project.
- GER 5060 GERMAN FOR READING KNOWLEDGE** (5)  
Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.
- GER 5061 GERMAN FOR READING KNOWLEDGE** (5)  
Emphasis on translation of materials from the student's field of specialization. Prerequisite: GER 5060, or the equivalent.
- GET 3100 LITERATURE IN TRANSLATION** (5)  
Masterpieces in German literature in English. Comparative use of the original text. Discussion and interpretation.

## HEBREW

- HEB 3000 ELEMENTARY HEBREW 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.
- HEB 3110 BEGINNING HEBREW INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills.
- HEB 3111 BEGINNING HEBREW INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills.
- HEB 3112 BEGINNING HEBREW INSTRUCTION III** (5)  
Provides training in the acquisition and application of basic language skills.
- HEB 3200 INTERMEDIATE HEBREW INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- HEB 3201 INTERMEDIATE HEBREW INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.

## ITALIAN

- ITA 3000 ELEMENTARY ITALIAN 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.
- ITA 3120 BEGINNING ITALIAN INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills.
- ITA 3121 BEGINNING ITALIAN INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills.
- ITA 3122 BEGINNING ITALIAN INSTRUCTION III** (5)  
Provides training in the acquisition and application of basic language skills.
- ITA 3200 INTERMEDIATE ITALIAN INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- ITA 3201 INTERMEDIATE ITALIAN INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- ITA 3420 REVIEW GRAMMAR/WRITING I** (5)  
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** (VAR)  
Project, field experience, readings, or research.

- ITA 4930 SPECIAL TOPICS** (5)  
Independent readings, research, or project.
- ITT 3110 LITERATURE IN TRANSLATION** (5)  
Masterpieces of Italian literature in English. Comparative use of the original text. Discussion and interpretation.

### LINGUISTICS

- LIN 3010 INTRODUCTION TO GENERAL LINGUISTICS** (5)  
Examination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in English.)
- LIN 3200 PHONETICS** (5)  
The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity.
- LIN 3400 APPLIED LINGUISTICS** (5)  
Examination of 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** (5)  
Definition and analysis. Problem-solving in dialect classification.
- LIN 4226 CONTRASTIVE PHONOLOGY** (5)  
For students proficient in more than one foreign language. Choice of languages to be determined by students and instructor.
- LIN 4333 CONTRASTIVE MORPHOLOGY** (5)  
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** (5)  
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** (5)  
Readings and analysis of bilingual programs and binational goals.
- LIN 5625 STUDIES IN BILINGUALISM** (5)  
Readings and analysis of bilingual programs and binational goals.
- LIN 5934 SPECIAL TOPICS IN LINGUISTICS** (5)  
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** (5)  
Provides training in the acquisition and application of basic language skills.
- POR 3121 BEGINNING PORTUGUESE INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills.
- POR 3122 BEGINNING PORTUGUESE INSTRUCTION III** (5)  
Provides training in the acquisition and application of basic language skills.
- POR 3200 INTERMEDIATE PORTUGUESE INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- POR 3201 INTERMEDIATE PORTUGUESE INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- POR 3420 REVIEW GRAMMAR/WRITING I** (5)  
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** (VAR)  
Project, field experience, readings, or research.
- POW 4930 SPECIAL TOPICS** (5)  
Independent readings, research, or project.
- PRT 3401 LITERATURE IN TRANSLATION** (5)  
Masterpieces of Portuguese literature in English. Comparative use of the original text. Discussion and interpretation.

### SPANISH

- SPN 3000 ELEMENTARY SPANISH 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.

- SPN 3120 BEGINNING SPANISH INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills.
- SPN 3121 BEGINNING SPANISH INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills.
- SPN 3122 BEGINNING SPANISH INSTRUCTION III** (5)  
Provides training in the acquisition and application of basic language skills.
- SPN 3200 INTERMEDIATE SPANISH INSTRUCTION I** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- SPN 3201 INTERMEDIATE SPANISH INSTRUCTION II** (5)  
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.
- SPN 3270 FOREIGN STUDY** (15)  
Intermediate level. One quarter full-time credit for foreign residence and study. Individual cases will be evaluated for approval.
- SPN 3415 COMMUNICATION ARTS** (5)  
Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.
- SPN 3420 REVIEW GRAMMAR/WRITING I** (5)  
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.
- SPN 3421 REVIEW GRAMMAR/WRITING II** (5)  
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.
- SPN 3500 CIVILIZATION I** (5)  
Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values.
- SPN 3705 APPLIED LINGUISTICS** (5)  
Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/traditional methods. (Conducted in Spanish.)
- SPN 3733 INTRODUCTION TO GENERAL LINGUISTICS** (5)  
Examination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in Spanish.)
- SPN 3780 PHONETICS** (5)  
The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity.
- SPN 3820 DIALECTOLOGY** (5)  
Definition and analysis. Problem-solving in dialect classification.
- SPN 3840 HISTORY OF THE LANGUAGE** (5)  
The internal and external history of language development. Examination of model texts from key periods of evolution.
- SPN 3905 INDEPENDENT STUDY** (5)  
Project, field experience, readings, or apprenticeship.
- SPN 4013 LANGUAGE SKILLS FOR PROFESSIONAL PERSONNEL** (VAR)  
The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).
- SPN 4470 FOREIGN STUDY: ADVANCED LANGUAGE/LITERATURE** (15)  
Full-quarter credit for foreign residence and study/work. (Approval of the Department required.)
- SPN 4501 CIVILIZATION II** (5)  
Open to any student who understands the target language. The making of a modern culture. The ideological, political and economic background of contemporary culture.
- SPN 4562 STUDIES IN BILINGUALISM** (5)  
Readings and analysis of bilingual programs and binational goals.
- SPN 4790 CONTRASTIVE PHONOLOGY** (5)  
Contrasts in the sound systems of English and Spanish.
- SPN 4800 CONTRASTIVE MORPHOLOGY** (5)  
Contrasts in the morphology and syntax of English and Spanish.
- SPN 4905 INDEPENDENT STUDY** (VAR)  
Project, field experience, readings, or research.
- SPN 4936 SENIOR SEMINAR** (5)  
Topic and approach to be determined by students and instructor.
- SPN 5060 LANGUAGE FOR READING KNOWLEDGE** (5)  
Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.
- SPN 5061 LANGUAGE FOR READING KNOWLEDGE** (5)  
Emphasis on translation of materials from the student's field of specialization. Prerequisite: SPN 5060, or the equivalent.

- SPN 5416 COMMUNICATION ARTS** (5)  
 Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.
- SPN 5565 STUDIES IN BILINGUALISM** (5)  
 Readings and analysis of bilingual programs and binational goals.
- SPN 5908 INDEPENDENT STUDY** (VAR)  
 Project, field experience, readings, or research.
- SPN 5930 SPECIAL TOPICS IN LINGUISTICS** (5)  
 Content to be determined by students and instructor. (Approval of the Department required.)
- SPT 3110 LITERATURE IN TRANSLATION** (5)  
 Masterpieces of Hispanic literature in English. Comparative use of the original text. Discussion and interpretation.
- SPT 3800 TRANSLATION SKILLS** (5)  
 Emphasis on basic principles and practice application.
- SPT 3810 CREATIVE WRITING/TRANSLATION** (5)  
 Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.
- SPT 4801 PROFESSIONAL TRANSLATION** (5)  
 Techniques and resources for professional translation. Prerequisite: SPT 3800.
- SPT 5118 LITERATURE IN TRANSLATION** (5)  
 Masterpieces of world literature. Open to students who are proficient in more than one language.
- SPT 5802 TRANSLATION ARTS** (5)  
 Techniques of professional translation. Prerequisite: SPT 4801
- SPW 3520 PROSE AND SOCIETY** (5)  
 The dynamics of participation and alienation between prose writers and their environment.
- SPW 3580 INTELLECTUAL HISTORY** (5)  
 The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.
- SPW 3582 LITERATURE OF REFORM** (5)  
 The consciousness of change in verbal art.
- SPW 3584 LITERATURE OF REPRESSION** (5)  
 The consciousness of constraints, their adoption and/or rejection in verbal art.
- SPW 3820 STYLISTICS** (5)  
 Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.
- SPW 3930 SPECIAL TOPICS** (5)  
 Readings and discussion of literary/linguistic topics to be determined by students and instructor.
- SPW 4152 EUROPEAN LITERATURE IN TRANSLATION** (5)  
 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** (5)  
 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** (5)  
 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** (5)  
 The identification and appreciation of techniques for sensitive reading and discussion of literary texts.
- SPW 4930 SPECIAL TOPICS** (5)  
 Independent readings, research, or project.
- SPW 5155 COMPARATIVE STUDIES** (5)  
 Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.
- SPW 5391 GENRE STUDIES** (5)  
 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 5934 SPECIAL TOPICS IN LANGUAGE/LITERATURE** (5)  
 Content and objectives to be determined by students and instructor.
- SPW 5936 GRADUATE SEMINAR** (5)  
 Topic and approach to be determined by students and instructor. (Approval of the Department required.)

# PERFORMING ARTS

**Philip H. Fink**, *Professor and Chairperson*  
(Music)

**Clair T. McElfresh**, *Professor* (Music)

**Philip Giberson**, *Associate Professor*  
(Theatre)

**Yoshihiro Obata**, *Associate Professor*  
(Music)

**Violet Vagramian**, *Associate Professor*  
(Music)

**Terry Twyman**, *Assistant Professor*  
(Theatre)

**Joseph Rohm**, *Assistant Professor*  
(Music)

**Paul Mazer**, *Assistant Professor*  
(Theatre)

**Judith Edwards**, *Assistant Professor*  
(Theatre)

**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

*Required Courses:*

Theory: MUT 4311, MUT 3416, MUT 3611

History: MUH 3372, MUL 4661, MUL 4500 or MUL 4400

Organizations (6 quarters)

Conducting

Applied (6 quarters)

Recital and Research and Directed Study

*Quarter Hours*

**60**

15

15

12

2

12

4

*Electives:*

**30**

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**90**

## CONDUCTING

*Required Courses:*

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 or her senior year.

*Electives:*

**30**

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**90**

## THEORY AND COMPOSITION

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>60</b>
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.	
<i>Electives:</i>	<b>30</b>
	<b>90</b>

## MUSICOLOGY

<i>Required Courses:</i>	<b>60</b>
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 the research requirement.	
<i>Electives:</i>	<b>30</b>
	<b>90</b>

## DUAL DEGREE MAJOR

<i>Required Music Courses:</i>	<b>62</b>
Theory	15
History	15
Organizations (6 quarters)	12
Conducting	4
Applied (6 quarters)	12
Research and Recital	2
Guitar MUS 3116	2
<i>Required Education Courses:</i>	<b>45</b>
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
	<b>107</b>

(Students interested in teacher certification see note on page 242.)

## COURSE DESCRIPTIONS

### DEFINITION OF PREFIXES

HUM—Humanities; MUC—Music: Composition; MUE—Music: Education; MUG—Music: Conducting; MUH—Music-History/Musicology; MUL—Music: Literature; MUM—Music: Commercial; MUN—Music:

Ensembles; MUS—Music; MUT—Music: Theory; MVB—Applied Music—Brass; MVK—Applied Music—Keyboard; MVP—Applied Music—Percussion; MVS—Applied Music—Strings; MVV—Applied Music—Voice; MVW—Applied Music—Woodwinds.

**HUM 3949 COOPERATIVE EDUCATION IN HUMANITIES (5)**  
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 (5)**  
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.

**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,SS)**  
A basic conducting course to gain fundamental technique and interpretation. A prerequisite for both advanced instrumental and choral conducting.

**MUG 4201 CHORAL CONDUCTING (2) (W)**  
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,SS)**  
An extension 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 THEORY I** (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 performing 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 from 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.
- MVS 3116 GUITAR SKILLS** (5) (F,W,S,SS)  
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,SS)  
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 experience 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 to specialize in one of the following three areas: Performance (Acting-Directing); Production (Design-Technical Theatre); or Film. In addition to satisfactory completion of all course work, a Theatre major is required to participate (within his or her area of specialization) in at least half of all major productions presented during enrollment in the Theatre Program.

	Quarter Hours
<i>Required courses:</i>	<b>60</b>
Theatre History	10
Performance and Production	5
Theatre courses (in area of selected emphasis)	45
<i>Elective courses:</i>	
Theatre electives	20
Non-Theatre electives (minimum required)	10
	<b>90</b>

## 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** (5) (F,S)  
Basic stage movement. Development of the body as an instrument of expression. (May be repeated.)

**DAA 4821 DANCE** (5) (F,W)  
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** (5)  
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** (5)  
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.

**ORI 3000 BASIC ORAL INTERPRETATION** (5) (F)  
Development of the voice as an instrument for expressive interpretation of literature.

**SPC 3600 PUBLIC SPEAKING** (5)  
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** (5)  
A consideration of all the dramatic elements of television, film and live theatre. Designed for the non-theatre student, to generate an awareness and appreciation of the theatre. (For non-theatre majors only.)

**THE 3051 CHILDREN'S THEATRE** (5)  
Techniques of selection, production and performance of plays for children.

**THE 3071 INTRODUCTION TO FILMMAKING** (5) (F,W,SS)  
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 3075 FILM PRODUCTION** (5) (W)  
Conceptual study of total-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: THE 3071 or permission of the instructor. May be repeated.)

- THE 4076 FILM PRODUCTION II** (5) (S)  
 Conceptual study of total 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: FIL 3200, or permission of the instructor. May be repeated.)
- THE 4110 DEVELOPMENT OF THE THEATRE** (5)  
 A survey of architecture, modes of production, major figures and trends in the theatre, from its origins to early 19th century.
- THE 4111 DEVELOPMENT OF THE THEATRE** (5)  
 A continuation of THE 4110. Survey will be from early 19th century to the present.
- THE 4510 DRAMATIC THEORY AND CRITICISM I** (5)  
 A study of basic critical writings on the theatre, from Plato and Aristotle to the present. Plays will be studied and critiqued.
- THE 4511 DRAMATIC THEORY AND CRITICISM II** (5)  
 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** (5)  
 The study of informal drama activity with children. Techniques of improvisation, sense recall, music and movement are employed.
- THE 4916 RESEARCH** (1-5)  
 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** (VAR)  
 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 responsibility 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** (5) (W)  
 Fundamentals of design for the theatre. Included are methods of analysis and research, technical drawing and rendering.
- TPA 3200 STAGECRAFT** (5)  
 A lecture-laboratory course covering the basic elements of scenery construction, painting, rigging, and stage properties.
- TAP 3220 STAGE LIGHTING** (5) (S)  
 The study of elementary electricity, lights and circuits; basic techniques of designing and executing lighting for the stage.
- TPA 3260 SOUND FOR THE THEATRE** (5) (S)  
 A study of the uses of sound effects and high fidelity electronics in theatrical production.
- TPA 4061 THEATRE DESIGN** (5) (S)  
 With a knowledge of the fundamentals 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** (5) (F)  
 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 effects, advanced stage carpentry, and stagecraft 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** (5)  
 Survey of all aspects of theatre administration: budget planning and maintenance; public relations; box office 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 student will focus 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 study 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. Students 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.)

- TPP 3730 DIALECTS** (5)  
A study of dialects common to western theatre. Prerequisite: TPP 3100 (Acting).
- TPP 4230 ACTING** (5) (F,W)  
With a thorough knowledge of all aspects of the actor's craft and a highly motivated background of performance experience, the actor will concentrate on refinement of ensemble playing techniques in a total performance situation (May be repeated.)
- TPP 4311 DIRECTING** (5) (S)  
With a broad understanding of basic directing skills and some directing experience, the student will focus on methods of unifying all production elements toward the finished performance. Students will direct a play for public performance. (May be repeated.)
- TPP 4531 STAGE COMBAT** (5) (W)  
A study of combat techniques for the stage, including fencing, boxing, wrestling and tumbling.
- TPP 4600 PLAYWRITING** (5)  
Study of the theory and principles of writing plays for the stage. Practice in writing either the short or long play. (May be repeated.)

## PHILOSOPHY MAJOR, RELIGIOUS STUDIES MAJOR

**George Kovacs**, *Professor and Chairperson*      **Bruce Hauptli**, *Assistant Professor*  
**Ricardo Arias**, *Professor*                              **James Huchingson**, *Assistant Professor*  
**Richard Konkel**, *Associate Professor*            **Thomasine Kushner**, *Assistant Professor*  
**Stanislaus 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:

<i>Required Courses</i>	<i>Quarter Hours</i>
Systematic Courses	15
Historical Courses	10
Other Philosophy Courses	10
Philosophy Seminar	5
Courses in one other discipline	<b>20</b>
<i>Electives:</i>	<b>30</b>
	<hr style="width: 100%; border: 0.5px solid black;"/>
	<b>90</b>

*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:

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>40</b>
Systematic Courses	20
Scriptural Courses	5
Historical Courses	5
Other Religious Studies Courses	10
Courses in One Other Discipline	<b>20</b>
<i>Electives</i>	<b>30</b>
	<b>90</b>

*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

## PHILOSOPHY MAJOR

### DEFINITION OF PREFIXES

EDF—Education; Foundations; PHH—Philosophy, History of; PHI—Philosophy; PHM—Philosophy of Man and Society; PHP—Philosophers and Schools.

### EDF 3542 PHILOSOPHIES OF EDUCATION (5)

Notions of philosophy and education will be applied in the review of prominent philosophies of education. 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 (5)

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 (5)

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 (5)

The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the Middle Ages, and linkages to their past and future are emphasized in this course.

### PHH 3300 RENAISSANCE PHILOSOPHIES (5)

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 (5)

The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the 17th and 18th centuries, and linkages to their past and future are emphasized in this course.

### PHH 3700 AMERICAN PHILOSOPHIES (5)

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 (5)

Major schools and works will be examined showing the development of Indian thought, from 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 (5)

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 (5)

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 (5)

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 (5)

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 (5)

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 (5)

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 (5)

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.

- PHI 3401 PHILOSOPHIES OF SOCIETY (5)**  
 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 (5)**  
 After a review of several basic philosophical notions, the assumptions, 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? (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 This course will examine modern philosophical currents as seen in the works of pertinent literary figures,

such as Tolstoy, Dostoevsky, Conrad, Kafka, Koestler, Camus and Mann. Certain basic themes resulting from the merging of aesthetic value and philosophic reflection will be examined: the self, alienation, history, the absurd, time and death.

**PHI 4910 INDEPENDENT RESEARCH (VAR)**

Topics will be selected to meet the academic needs of the individual student.

**PHI 4935 PHILOSOPHY SEMINAR (5)**

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 (5)**

Topics will be selected to meet the academic needs of groups of students.

**PHM 3500 PHILOSOPHIES OF HISTORY (5)**

After 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 (5)**

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 (5) (S)**

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 way philosophical thinking contributes to the discovery of an authentic attitude towards the phenomenon of death as part of human living.

**PHM 4220 CHANGE AND ORDER IN SOCIETY (5)**

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 (5)**

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 freedom and rights, responsibility and punishment, rule of law and civil disobedience, legality and justice.

**PHP 3840 CHINESE AND JAPANESE PHILOSOPHIES (5)**

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, Taoist, Legalist and Zen Buddhist philosophies.

**PHP 4510 MARXISM (5)**

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 (5)**

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 (5)**

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 (5)**

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

REL—Religion.

**REL 3020 RELIGION AND LIFE STORIES (5)**

An explanation of the nature of religious experience as it appears in the life stories of individuals. The course will include the life stories of the initiators of the great world religions as well as those of contemporary persons. The student will be encouraged to explore his own life story in the light of this prior discussion.

**REL 3160 ECSTASY AND CELEBRATION (5)**

The course will examine the dynamic aspects of celebration, dance, ecstasy, play, and other expressions of joyous self-abandonment in religious experience. Lectures, student participation, guest speakers, and field trips will be employed.

**REL 3161 HUMAN RELIGIOUS EXPERIENCE (5)**

A phenomenological comparison between the religious experiences of primitive man and modern man will cover the first part of this course. The second part will investigate the psychological motivations in the religious experience of contemporary man. Finally, the inner dynamics in the development of a mature religious attitude will be examined.

- REL 3172 FAITH AND ETHICS (5)**  
 This course will examine the nature of ethics in its relationship to faith orientation. After considering the various religious foundations 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 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 (5)**  
 This course will survey the life and times of Paul as a prelude to an in-depth 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 Paul. Major themes will be related to modern movements in Judaism and Christianity.
- REL 3300 RELIGIONS OF THE WORLD (5)**  
 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 (5)**  
 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 faith.
- REL 3410 WHO IS GOD? (5)**  
 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 (5)**  
 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 (5)**  
 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 beliefs 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 (5)**  
 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 (5)**  
 The lives and thoughts of the leaders of the Protestant Reformation 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 well as the movements they founded.
- REL 3540 MODERN CHRISTIANITY (5)**  
 This course will survey the basic beliefs 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 for the emerging newer understanding of Christian faith.
- REL 3600 JUDAISM (5)**  
 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.

- REL 3665 JUDAIC PRAYER** (5)  
 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 teachings concerning prayer and its practice in contemporary Jewish worship and spirituality.
- REL 4138 INSTITUTIONAL RELIGION IN NORTH AMERICA** (5)  
 This course will examine the patterns and development of organized 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** (5)  
 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 synthetically the essential characteristics of mystical experience.
- REL 4411 WHAT IS MAN?** (5)  
 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** (5)  
 This course will examine contemporary issues facing Judaism and Christianity, 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** (5)  
 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 evil 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** (5)  
 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** (5)  
 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** (5)  
 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?** (5)  
 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** (VAR)  
 Topics will be selected to meet the academic needs of the individual student.
- REL 4931 RELIGIOUS STUDIES SEMINAR** (5)  
 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** (5)  
 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** (5)  
 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 3710 MEANING OF LIFE (5)**  
This introductory course examines the convergent and divergent views of philosophies and religions regarding the meaning of life. Special emphasis is given to the variety of strategies available to the individual in the personal search for such meaning.
- PHI 3762 EASTERN PHILOSOPHICAL AND RELIGIOUS THOUGHT (5)**  
This introductory course examines the development of philosophical and religious thought in the East, from ancient to modern times. Hinduism, Buddhism, Confucianism, Taoism and other major viewpoints will be considered, in themselves and in comparison with Western forms of thought.
- PHI 4764 PERSPECTIVES ON SOCIAL ISSUES (5)**  
This course will examine contemporary issues that have a religious philosophical dimension. The specific topic(s) and perspective(s) will be selected and announced in advance.
- PHI 4910 INDEPENDENT RESEARCH (VAR)**  
Topics will be selected to meet the academic needs of the individual student.
- PHI 4936 INTERDISCIPLINARY SEMINAR (5)**  
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 (5)**  
Topics will be selected to meet the academic needs of groups of students.
- PHM 4000 HUMAN IDENTITY (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
This course will explore the sources and impact of modern technology from philosophical 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 off-campus. 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*

John W. Sheldon, *Professor*

Kenneth A. Hardy, *Associate Professor*

Arthur W. Herriott, *Associate Professor*

Leonard S. Keller, *Associate Professor*

Florentin J-M. R. Maurrasse,  
*Associate Professor*

Stephan L. Mintz, *Associate Professor*

Ralph E. Morganstern, *Associate Professor*

John H. Parker, *Associate Professor*

Kathryn R. Williams, *Associate Professor*

Usman A. Sayeed, *Assistant Professor*

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:

		<i>Quarter Hours</i>
<i>Required Courses:</i>		<b>26</b>
CHM 4220	Advanced Organic Chemistry	5
CHM 4230L	Organic Structure Determination	2
<i>or</i>		
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 additional chemistry course		5
<i>Electives:</i>		<b>64</b>
		<hr/>
		<b>90</b>

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:

		<i>Quarter Hours</i>
<i>Required Courses:</i>		<b>61</b>
CHM 4220	Advanced Organic Chemistry	5
CHM 4230L	Organic Structure Determination	2
<i>or</i>		
CHM 4320L	Research Techniques in Organic Chemistry	2
CHM 3410	Physical Chemistry I — Thermodynamics	5
CHM 3411	Physical Chemistry II — Equilibrium and Properties of Solutions	5
CHM 3412	Physical Chemistry III — Quantum Mechanics	5
CHM 3410L-CHM 3411L-CHM 3412L	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 Independent Study in Chemistry	4
	One additional senior-level chemistry course	5
<i>Other Required Courses: at least one of the following:</i>		
MAP 3302	Differential Equations	5
MAP 4401	Math Methods in the Physical Sciences	5
COP 3110	Introduction to Computers	5
<i>Electives:</i>		<b>29</b>

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**90**

*Remarks:* No D grades will be allowed in courses required for the major. This rule includes required courses outside the discipline.

*Minor in Chemistry:*

	<i>Quarter Hours</i>	
<i>Required Courses:</i>	<b>35</b>	
CHM 3045, 3045L-CHM 3046, 3046L	Contemporary Chemistry with Laboratory	14
CHM 3210, 3210-CHM 3211, 3211L	Organic Chemistry with Laboratory	14
CHM 3120, 3120L	Quantitative Analysis with Laboratory	7
	<hr/> <b>35</b>	

### 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 (5) (F)**

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 (2) (F)**

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 LABORATORY I-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, ion-exchange techniques, and complex formation titrations. *Must be taken concurrently with CHM 3120L.* Prerequisite: CHM 3045-3046.

#### **CHM 3120L 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 (2) (S)**

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 (5) (F)**

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 3410L PHYSICAL CHEMISTRY LABORATORY I (1) (F)**

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 3411L PHYSICAL CHEMISTRY LABORATORY II** (2) (W)  
Projects in thermochemistry, physical properties of solutions, and homogeneous equilibria. *Must be taken concurrently with CHM 3411.*
- CHM 3412/PHY 4604 PHYSICAL CHEMISTRY III—QUANTUM MECHANICS** (5) (S)  
The third in the physical chemistry series: simple quantum mechanical calculations, solutions to the Schrodinger 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)  
Heterogeneous equilibria, reaction kinetics in solution. Requires some knowledge of chemical reaction mechanisms in solution.
- CHM 4090L INTRODUCTION TO SCIENTIFIC GLASSBLOWING** (2) (F)  
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** (2) (W)  
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** (5) (F-S)  
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 4230L ORGANIC STRUCTURE DETERMINATION** (2) (F-S)  
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** (VAR) (F)  
An intensive examination of one or more areas selected by instructor and students.
- 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** (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 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 of inorganic compounds, periodicity, introduction to nonaqueous solvents, ligand field theory, organometallic compounds.
- CHM 4680 SPECIAL TOPICS IN INORGANIC CHEMISTRY** (VAR) (S)  
An intensive examination of 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 professor 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 hr/wk of laboratory/library work per 1 hr of 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** (VAR)  
An intensive examination of one or more areas selected by instructor and students.
- CHM 5250 ORGANIC SYNTHESIS** (5) (F)  
Use of 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 conformational analysis.
- CHM 5260 PHYSICAL ORGANIC CHEMISTRY (5) (S)**  
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 conformational analysis, etc.
- CHM 5280 NATURAL PRODUCTS CHEMISTRY AND BIOSYNTHESIS (5) (F)**  
Studies of the chemical origins (biosynthesis), properties, and synthesis of the various classes of naturally occurring compounds: terpenes, steroids, alkaloids, acetogenins.
- CHM 5380 SPECIAL TOPICS IN ORGANIC CHEMISTRY (VAR) (F)**  
An intensive examination of one or more areas selected by instructor and students.
- CHM 5440 KINETICS AND CATALYSIS (5) (F)**  
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 of 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 (5) (W)**  
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 (2) (S)**  
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 (5) (S)**  
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 (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.
- 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:

<i>Required Courses:</i>	<i>Quarter Hours</i>
	<b>35</b>
AST 3100 Modern Astronomy	5
MET 4701 Meteorology	5
GLY 4650 Paleobiology	5
GEO 3200C Physical Geography	5
OCE 3014 Physical Oceanography	5

EVS 4164	Applied Environmental Geology		
or			
EVS 4935C	Water Resources	5	
OCB 3010	Biological Oceanography	5	
<i>Possible Natural Science Electives:</i>			<b>10</b>
PCB 3043	Fundamentals of Ecology	5	
GLY 4791	Cartography and Geologic Surveying	3	
AST 3022L	Observational Astronomy	2	
<i>Social Science Electives:</i>			<b>(45)</b>
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	

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**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:**

*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: **55**

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	Igneous and Metamorphic Petrology*	5
GLY 4401	Structural Geology*	5
GLY 4650	Paleobiology*	5
GLY 4555	Sedimentology*	5

*Other Required Courses:* **10**

GLY 4910	Independent Study	5
GLY 4791	Cartography and Geologic Surveying or the equivalent	5

*Electives:* select courses to meet particular professional goals.

Suggestions: **27**

*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

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*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	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**

(5)

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**

(5)

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**

(5-5)

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.

- EVS 4164 APPLIED ENVIRONMENTAL GEOLOGY (5)**  
A survey of the geological and geographical factors critical to man's attempt to contend with natural 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 factors involved in future development and growth of these areas, and conservation methods in relation to the geology of these areas. Prerequisites: GLY 3106, GEO 3200C, and a sound background in mathematics, physics, and chemistry.
- EVS 4164L APPLIED ENVIRONMENTAL GEOLOGY LABORATORY (1)**  
Analysis of physical and physico-chemical geologic processes. Identification, control, and correction techniques of landslides, rockfall, subsidence, quicksand, piping and flooding hazards. Corequisite: EVS 4164.
- GEO 3200C PHYSICAL GEOGRAPHY (5)**  
Survey of the physical environment relevant to studies in regional geography and earth sciences. Natural evolution of landforms, and the interacting processes responsible for these features. 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 (1)**  
The use of maps as means of depicting the earth's morphology. The processes responsible for the landforms, 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 of GEO 3200 for science majors.
- GEO 3510 EARTH RESOURCES (5)**  
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 (5)**  
Theories and techniques used in modern geographic analyses. Simple correlation and regression. Multiple regression. Surfaces 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 (5)**  
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 (5)**  
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 (5)**  
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 (2)**  
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 (5)**  
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 (2)**  
Identification of nonopaque minerals under the microscope, based on their optical and crystallographic properties, determined from oil immersion/permanent mount methods.
- GLY 3850 ENVIRONMENTAL GEOLOGY (5)**  
The composition and structure of the earth, the internal and external forces acting upon it and the resulting surface features. Case studies and general principles illustrated from South Florida and the Caribbean. Two field trips expected. No prerequisites.
- GLY 3850L ENVIRONMENTAL GEOLOGY LABORATORY (1)**  
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.
- GLY 4190 CARIBBEAN EARTH SCIENCES SEMINAR (5)**  
Discussion of various topics dealing with geographic and geologic problems involving local, national, and international influence on economic life. Similar discussion will be held on oceanographic problems related to both the aquatic and sea-bed resources. Guest speakers in the earth and social sciences will present lectures pertinent to their respective fields. Prerequisite: GLY 3157, or instructor's permission.

- GLY 4240 GEOCHEMISTRY** (5)  
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** (5)  
Genesis, composition, and classification of igneous and metamorphic rocks. Includes studies of experimental solid-liquid phase equilibria and mineral stabilities of silicate systems. Prerequisite: GLY 3322.
- GLY 4315L IGNEOUS AND METAMORPHIC PETROLOGY LABORATORY** (2)  
Lab techniques concern the description and identification of igneous and metamorphic rocks in hand specimens and thin sections.
- GLY 4401 STRUCTURAL GEOLOGY** (5)  
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** (2)  
Interpretation of geologic maps, folds, faults, outcrop patterns, and three points problems. Graphic resolutions with stereographic net and structural analysis.
- GLY 4450 GEOPHYSICS** (5)  
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** (5)  
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** (2)  
Mechanical analyses, coloration techniques, and heavy mineral separation techniques. Macroscopic and microscopic study of sediments and rocks.
- GLY 4650 PALEOBIOLOGY** (5)  
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** (2)  
Microscopic study of foraminifera, radiolaria and the diatoms. Study of invertebrate fossils, and osteology of the vertebrates. Corequisite: GLY 4650.
- GLY 4730 MARINE GEOLOGY** (5)  
Survey of the main physiographic provinces of the ocean floor. Modern theories concerning the evolution of the crust; continental drift, 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 4730L MARINE GEOLOGY LABORATORY** (1)  
Training in the analysis and interpretation of marine geophysical data. Corequisite: GLY 4730.
- GLY 4791 CARTOGRAPHY AND GEOLOGIC SURVEYING** (5)  
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** (5)  
A three-week field course in at least two Caribbean islands. cursory review of the geologic factors 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 MICROPALAEONTOLOGY** (5)  
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 foraminifera 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.
- GLY 5793 CARIBBEAN SHALLOW-MARINE ENVIRONMENTS** (5)  
Four-week field study of multiple tropical environments as illustrated in the Caribbean. Physico-chemical processes in the near-shore arenaceous, argillaceous and calcareous environments. Coral reef morphology, ecology and distribution patterns. Dynamical processes acting on the nearshore environ-

ments, and their effects on reef 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 field 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 (5)**

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 (2)**

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 (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.

**MET 4301 DYNAMIC METEOROLOGY (5)**

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 (5)**

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 (5)**

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 (4)**

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 (1)**

Interpretation of geophysical data pertaining to the structure and composition of selected Atlantic and Caribbean margins.

**OCG 6280 MARINE SEDIMENTARY PETROLOGY (4)**

Analysis of the genesis, distribution pattern, physical and chemical properties of marine sedimentary facies, 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 (1)**

Microscopic and geochemical analyses of marine sedimentary facies.

**OCG 6453C HYDROCHEMICAL REACTIONS IN COASTAL AQUIFERS (4)**

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 aquifers. Prerequisites: Gen. Chemistry & GLY 3850 or equivalent.

**OCG 6453L HYDROCHEMICAL REACTIONS IN COASTAL AQUIFERS LABORATORY (1)**

Quantitative and qualitative geochemical methods of water analyses, and their application to water quality monitoring and conservation.

**OCP 5291C COASTAL PROCESSES (4)**

Dynamics of estuarine and nearshore circulation. Advective and diffusive processes. Natural and man-induced supply of particulate matter to the coastal region, and the longshore and offshore dispersal of this matter. Waves, tides, periodic sea level changes and their effects on coastal erosion and sedimentation. Coastal management. Prerequisites: OCE 3014 and EVS 4108 or permission of instructor.

**OCP 5291L COASTAL PROCESSES LABORATORY (1)**

Working methods, including remote sensing techniques and use of oceanographic instruments, in the study 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 (non-science) 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 SCIENCE I** (5)  
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** (5)  
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** (5)  
A course for non-science majors, offering an introduction to the ecology of South Florida through lectures and a series of field 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** (5)  
An intensive analysis of several current environmental topics. Recommended for primary and secondary school teachers.
- EVR 4021 SURVEY OF ENVIRONMENTAL PROBLEMS I** (5) (W)  
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** (5)  
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** (5)  
Common air pollutants — their sources and methods of control. Different legislative and administrative approaches will be studied. Prerequisite: General Chemistry.
- EVR 4311 ENERGY RESOURCES** (5)  
Seminar dealing with power and energy production in modern society, fundamental energy relationships of industrial and domestic processes.
- EVR 4905 RESEARCH AND INDEPENDENT STUDY** (VAR)  
The student works with a professor on a research project.
- EVR 4920 ENVIRONMENTAL COLLOQUIUM** (5)  
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** (5)  
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** (5)  
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** (5)  
An analysis of several current environmental topics. Recommended for primary and secondary school teachers.
- EVR 5935 SPECIAL TOPICS** (VAR) (W)  
A graduate-level course dealing with selected environmental topics. The content will not necessarily be the same each time the course is offered.

**EVR 5907 RESEARCH AND INDEPENDENT STUDY**
**(VAR)**

The student works with a professor on a research project. Variable credit.

**ISC 3949, ISC 4949 COOPERATIVE EDUCATION IN PHYSICAL SCIENCES**
**(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 evaluations will be required of each student.

**MET 4701 METEOROLOGY**
**(5)**

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 neighboring areas. Reading of weather maps. Introduction to meteorological instruments, transmission and plotting of meteorological data. Competence in physics and calculus is required.

## 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:	<b>55</b>
PHY 3123 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
<i>Electives:</i>	<b>35</b>
	<b>90</b>

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
<i>Track A:</i>	<b>30</b>
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*
	<b>30</b>

<i>Track B:</i>			<b>32</b>
PHY 3050C-PHY 3051C Physics without Calculus		10	
PHY 3040L Junior Physics Laboratory		2	
PHY 3123 Modern Physics		5	
Additional approved courses		15*	
			<hr/>
			<b>32</b>

\*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

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 3040C-3042C, 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 (5) (S)

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 (5) (W)

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.

- PHY 3040L PHY 3041L PHY 3042 JUNIOR PHYSICS LABORATORY** (2-2-2) (F,W,S)  
Laboratory section of Physics 3040C-3042C. This may be taken separately.
- PHY 3050C PHY 3051C PHYSICS WITHOUT CALCULUS** (F,W,S,SS)  
Introductory physics for students without calculus. This is a two quarter sequence, which covers most of the material in the PHY 3040C-3042C sequence.
- PHY 3123-PHY 3124 MODERN PHYSICS** (5-5) (W,S)  
Recent developments in physics are discussed. Subject matter includes: review of classical physics, special relativity, four-vectors, particle aspects of 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 Fraunhofer 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 first 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.
- PHY 4323-PHY 4324 SEMINAR IN ELECTROMAGNETISM** (5-5) (F,W)  
The theory of electromagnetic fields 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 Boltzmann limit to the calculation of thermodynamic variables. Prerequisites: general chemistry, general physics, and mathematics through Calculus II.
- PHY 4604 QUANTUM MECHANICS I** (5) (S)  
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 4750L INTRODUCTION 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 steady 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 faculty member on subject material of mutual interest.
- PSC 3001 CONCEPTS IN PHYSICS** (5) (S)  
Self contained 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 first hypothesized and then used to predict and eventually cross new frontiers of physics.

**PCS 3351 EARTH PHYSICS**

(5)

The planet earth treated as a physical system. The formation and structure of the earth will be discussed, as well as current dynamic changes.

**PSC 3810 FRONTIERS OF PHYSICS**

(5) (F)

An introduction on an elementary level to developments in physics in the 20th century. The subjects covered will include relativity, atomic and molecular structure, solid state physics, the laser, nuclear structure, particle physics and astrophysics.

## 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*

**25**

*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*

**25**

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 political 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.

### CPO 3002 INTRODUCTION TO COMPARATIVE POLITICS (5)

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 studying cross-national political behavior. (CP)

### CPO 3303 GOVERNMENT AND POLITICS OF SOUTH AMERICA (5)

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 political life of the nations with whom we share this hemisphere. (CP)

- COP 3304 THEORIES OF LATIN AMERICAN POLITICS** (5)  
This course analyzes the multiple structures, processes, and groups which are relevant to an understanding of Latin American political economy. Of special interest are the political impacts of land and wealth inequality and economic dependency. The dynamics of Latin American politics are considered, with an emphasis on the role of the military and the church. Alternate strategies for modernizing the region are considered. (IP, PT)
- CPO 3323 GOVERNMENT AND POLITICS OF THE CARIBBEAN** (5)  
Studies the political system of the major British, French, Dutch, and Spanish areas in the Caribbean basin. Attention is focused on such factors 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 of change in an important area of the world and to compare those dynamics with change in his own country. (CP)
- CPO 3333 GOVERNMENT AND POLITICS OF CENTRAL AMERICA** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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 ideology in shaping policy processes and content is given careful analysis. (CP)
- CPO 4005 TOPICS IN COMPARATIVE POLITICS** (VAR)  
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 faculty. Allows the student to choose topics of particular interest to him or her.
- CPO 4034 THE POLITICS OF DEVELOPMENT AND UNDERDEVELOPMENT** (5)  
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)
- CPO 4055 POLITICS OF AUTHORITARIANISM** (5)  
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** (5)  
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** (5)  
This course is an analysis of the development of the foreign policy-making process in the United States, Britain, France, West Germany, and Italy. Particular attention is directed to the domestic and international factors which affect the making of foreign policy. (CP, IP)
- CPO 4327 TOPICS IN CARIBBEAN POLITICS** (5)  
An intensive examination of selected topics dealing with the Caribbean area. The subjects will vary, depending upon the desires of both students and faculty. (CP)
- CPO 4360 CUBAN POLITICS** (5)  
Examines the course of twentieth century Cuban politics. The course is subdivided into five parts covering the three periods of relatively stable politics and the two major revolutions. (CP)
- INR 3002 DYNAMICS OF WORLD POLITICS** (5)  
An examination of actors, institutions, and processes in world politics. Attention is given to unfolding transnational institutions and processes, including the role of states, international organizations, and non-

governmental actors. An examination of the nation-state system. Attention is given to the use of force in international affairs, 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 (5)**

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 (5)**

An analysis of the factors and problems involved in administering change on a transnational basis. Stress is placed on the difficulty 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 difficulties involved in maintaining world peace. (IP)

**INR 3603 THEORIES OF WORLD POLITICS (5)**

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 (5)**

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 of case studies. (IP)

**INR 4102 AMERICAN FOREIGN POLICY (5)**

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 (5)**

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 for study. (CP, IP)

**INR 4407 POLITICAL FOUNDATIONS OF INTERNATIONAL LAW (5)**

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 (VAR)**

An intensive examination of selected topics with an international dimension. Subjects will vary, depending upon the desires of both students and faculty. Allows the student to choose topics of particular interest to him or her. (IP)

**INR 4942 INTERNATIONAL 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.

**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 (VAR)**

**PAD 3003 POLITICS OF PUBLIC BUREAUCRACY (5)**

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 (5)**

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 (5)**

Introduces the student to the major fields of political science. Attention is given to the concepts, definitions, and terminology used in the discipline. Intended for the non-major. Elective credit only for political science majors.

**POS 3153 URBAN POLITICS (5)**

An examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is placed on how urban problems are identified; and the way proposed solutions are

- formulated, legitimized, and administered by urban policy-making processes. Includes a discussion of urban political culture. Enables the student to understand major problems confronting communities in urban areas. (AP)
- POS 3283 THE JUDICIAL PROCESS (5)**  
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 (5)**  
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 conflict-management. (AP)
- POS 3703 METHODS OF POLITICAL ANALYSIS (5)**  
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 recommended for those planning graduate study. (PT)
- POS 3122 STATE GOVERNMENT AND POLITICS (5)**  
A study of the political processes, structure, and development of state systems. This course attempts to prove the student with an understanding of the basic structure of state government and political processes. (AP)
- POS 3453 POLITICAL PARTIES (5)**  
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 (5)**  
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 (5)**  
An examination of the limitations on government as defined by the Supreme Court through constitutional 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 (5)**  
An examination of the origin and development, structure and operation of the Government of the United States, with an emphasis on the characteristics and political 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 (5)**  
A theoretical analysis and interpretation of urban political leadership, with special emphasis on the structure of political power and the decision-making process. This course attempts to provide students 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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
An examination of various approaches, theories, and findings on the behavior of judicial actors, particularly as it relates to judicial decision-making. The focus of the course will be on judges, lawyers, prosecutors, and other relevant actors in the judicial process. (JP)

- POS 4413 THE PRESIDENCY (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
An examination of 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 (VAR)**  
By arrangement with the instructor.
- POS 4933 TOPICS IN POLITICS (VAR)**  
Subject matter varies according to instructor.
- POS 4935 HONORS SEMINAR (VAR)**  
Subject matter varies according to instructor.
- POS 4944 LEGISLATIVE 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 the student and advisor.
- POS 4944 JUDICIAL 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 the student and advisor.
- POS 5606 TOPICS IN PUBLIC LAW (VAR)**  
An intensive examination of selected topics in the field of public law. The subjects will vary, depending upon the desires of students and faculty.
- POS 5909 INDEPENDENT STUDY (VAR)**  
By arrangement with instructor.
- POS 5934 TOPICS IN POLITICS (VAR)**  
Subject matter varies according to instructor.
- POS 6146 SEMINAR IN URBAN POLITICS (VAR)**
- POS 6934 TOPICS IN POLITICS (VAR)**  
Subject matter varies according to instructor.
- POT 3013 ANCIENT AND MEDIEVAL POLITICAL THEORY (5)**  
A study of the major political philosophers of 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)
- POT 3054 MODERN POLITICAL THEORY I (5)**  
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 THEORY (5)**  
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 (5)**  
An analysis of the thought of the great political thinkers of the late eighteenth, nineteenth, and early twentieth centuries. 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)
- POT 4113 POLITICS AND THE ARTS (5)**  
Employs the arts as a tool of analysis for political science. Includes literature, painting, music and film. Special attention is given to the relationship between popular culture and political systems. (PT)
- POT 4123 ALTERNATIVE POLITICAL FUTURES (5)**  
Explores the political dimensions of the future. Examines alternative political systems and institutions from the perspective of political ideas. Special attention is given to assessing current political trends and extrapolating them into the future (AP, PT)
- POT 4204 AMERICAN POLITICAL THOUGHT (5)**  
An examination of American political thought from its 17th century origins to the contemporary period. The continuities and discontinuities in the development of American political ideas since colonial times will receive special attention. (PT)

- POT 4302 POLITICAL IDEOLOGIES** (5)  
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** (VAR)  
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** (5)  
An intensive examination of selected topics in the field of politics and the arts. Subjects will vary, depending upon the desires of students and faculty.
- 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** (5)  
An intensive examination of the theory and practice of formulating, 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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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 officials. The course attempts to provide students with an understanding of the decision-making process with respect to the urban transportation policy planning. (PP)
- PUP 5934 TOPICS IN PUBLIC POLICY** (VAR)  
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** (VAR)
- SOC 3949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES** (5)  
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** (5)  
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*

Edward Girden, *Distinguished Professor*

Milton Blum, *Professor*

Gordon Finley, *Professor*

Gary Moran, *Professor*

Bernard Saper, *Professor*

Marvin Dunn, *Associate Professor*

James Flanders, *Associate Professor*

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

DEGREE: *Bachelor of Arts*

LOWER DIVISION PREPARATION:

*Required course:* introductory psychology

*Recommended courses:* physics, history, sociology, philosophy, economics, mathematics.

UPPER DIVISION PROGRAM:

	<i>Quarter Hours</i>
<i>Specific Required Courses in Psychology</i>	<b>14</b>
PSY 3043C 1. Advanced General Psychology Lecture (2) Laboratory (5)	7
<i>Note:</i> 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, INP 4055C, PPE 4325C, or SOP 4215C)	7
<i>Note:</i> To be taken during senior year. Prerequisites: PSY 3043C, STA 3122, STA 3123 or permission of instructor.	
<i>Required Courses in Statistics</i>	<b>8</b>
1. STA 3122 (5)	
2. STA 3123 (3)	
<i>Elective Courses in Psychology</i>	<b>at least 35</b>
<i>Note:</i> PSY 4693C is especially recommended for the student planning to take the psychology specialty part of the Graduate Record Examination	
<i>Elective Courses Outside of Psychology</i>	<b>at least 10</b>

*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 virtue 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 proceed 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
Differences (not statistics)	

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 5246C	Multivariate Analysis in Applied Psychology	4 credits

EXP 5702	Strategies and Methods of Applied Psychological Research	5 credits
DEP 5405	Psychological Processes of the Maturing Adult	4 credits
CLP 5931	Ethical Code in Psychological Practice	1 credit
<i>Specialty Area Requirements</i>		
CYP 5535	Psychology of Institutional and Social Change	4 credits
INP 5055	Social Psychology of Organizations (may be substituted for CYP 5535)	4 credits
CYP 5515	Psychological Services Administration	4 credits
CYP 6936	Current Issues in Community Psychology	3 credits
CYP 6536	Principles and Methods of Psychological Consultation	4 credits
CYP 6526	Psychological Methods of Program Evaluation	5 credits
CYP 6956	Field Experience in Community Psychology (three enrollments 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	Principles and Methods of Psychological Consultation	
CYP 6526	Psychological Methods of Program Evaluation	
	Total quarter-hours required:	65

\*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; DEP—Developmental Psychology; EAB—Experimental 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 (5)**  
Study of personal adjustment in the social and occupational life of the individual. Emphasis on interpersonal aspects of effective behavior.

**CLP 4144 ABNORMAL PSYCHOLOGY (5) (W,S)**  
Various forms 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 (5)**  
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 (5)**  
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 (5)**  
A critical, intensive examination of selected, important issues in mental health. Emphasis is given to the 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 (2)**  
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 (5) (F,S)**  
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 (7) (F)**  
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 (4)**  
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 (4)**  
A study of the theoretical basis of and strategies applied to the process of effecting social change in community institutions involved in the delivery of human services.

**CYP 5954 COMMUNITY PSYCHOLOGY FIELD EXPERIENCES II (7) (W)**  
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 I.

**CYP 6526 PSYCHOLOGICAL METHODS OF PROGRAM EVALUATION (4)**  
Development of 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 (4)**  
An analysis of the basic psychological approaches underlying consultation, with special emphasis on the practical application of the processes of learning, cognition, and interpersonal relations to techniques of consulting with various "target" agencies, individual clients, and other professionals in community settings. Prerequisite: graduate standing at FIU, or permission of instructor.

**CYP 6936 CURRENT ISSUES IN COMMUNITY PSYCHOLOGY (3)**  
An intensive analysis of contemporary theoretical, practical, and professional 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 study 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 (5) (W)**  
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 factors 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 (5) (S)**  
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 (5) (W)**  
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 developmental psychology.

**DEP 4204 PEDIATRIC PSYCHOLOGY (5)**  
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 (5)**  
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 (5) (F,S)**  
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, intellectual, 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 (4)**  
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 graduate program; equivalent background; or permission of instructor.

**EDP 3004 INTRODUCTORY EDUCATIONAL PSYCHOLOGY (5) (F,W,S,SS)**

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 (5) (F,W)**

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 (5)**

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 (5) (S)**

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, developmental 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 (7)**

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 (5)**

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 (5)**

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 nonobtrusive 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 performance, leadership, job analysis, selection and performance 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, performance 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 (5)**

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 quantitative methods and models for selection, criteria analysis, performance appraisal, management training, and job satisfaction are discussed. Prior course in Statistics *strongly recommended*.

**INP 5055 SOCIAL PSYCHOLOGY OF ORGANIZATIONS (4)**

The application of concepts and theories from social psychology and sociology to the organizational setting. Emphasis on role theory, value formation and the operation of norms, including their development

and enforcement. 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 (4)**  
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, quasi-experimental, 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 (5) (W)**  
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 (5)**  
Normal and altered states of human consciousness are analyzed from the perceptual and neuro-psychological viewpoint. Broad topic areas include physiologically determined levels of arousal, from deep sleep to intense excitement; selective attention; perceptual plasticity; illusions; sensory deprivation; biofeedback; psychosomatic disease; hypnotism and suggestibility; as well as a critical treatment of the phenomena of parapsychology.

**PPE 4105 HUMANISTIC PSYCHOLOGY (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5) (F)**  
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) 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 fulfilling 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.

- PSY 4900 INDEPENDENT READINGS IN PSYCHOLOGY** (VAR)  
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 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 of the research project prior to enrollment in the course. A written report of the research in the A.P.A. publication style must be submitted for evaluation before credit will be awarded.
- PSY 4916 INDEPENDENT RESEARCH IN PSYCHOLOGY** (VAR)  
Limited to qualified students who have permission from a faculty 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** (VAR)
- PSY 4931 SENIOR SEMINAR IN PSYCHOLOGY** (2)  
An advanced seminar for seniors. Analysis of major contemporary trends in psychological theory and research.
- PSY 4941 INDEPENDENT FIELD EXPERIENCES IN PSYCHOLOGY** (VAR)  
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** (4)  
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** (4)  
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** (5)  
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** (5)  
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** (5)  
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** (5) (F,W)  
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** (5) (W)  
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** (5) (F)  
An examination of women from various perspectives, such as biological, anthropological, mythological, religious, historical, legal, sociological, and psycho-analytical points of view. Discussion of ways in which these various perspectives influence the psychological development of contemporary women.
- SOP 3772 PSYCHOLOGY OF SEXUAL BEHAVIOR** (5)  
An examination of the nature, development, decline and disorders of sexual behaviors, primarily from the perspectives of 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** (5)  
An examination of the social-psychological consequences of being black in America. This course focuses 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 family, and their attitudes towards the broader social milieu.
- SOP 3931 PSYCHOLOGY OF GIVING, HELPING AND VOLUNTEERING** (5)  
Theories, research data, and community applications of prosocial activities, such as giving, helping, volunteering and altruism.

- SOP 3932 PSYCHOLOGY OF DRUGS AND DRUG ABUSE (5) (W)**  
This course will cover some basic information about the nature and effects of drugs abused, the social and personal dynamics involved in the phenomena of drug abuse and the various rehabilitation programs currently being employed to combat drug abuse.
- SOP 4015 SOCIAL AND PERSONALITY DEVELOPMENT (5) (W)**  
An examination of the genetic, familial, and societal factors influencing the development of a child's personality and his social behavior.
- SOP 4215C EXPERIMENTAL SOCIAL PSYCHOLOGY: LECTURE (2) AND LABORATORY (5) (S)**  
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 structure and communication, etc.
- 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 (5)**  
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 (5)**  
Focuses upon those sources of human motivation which are a consequence of man's social-interpersonal environment and his striving to obtain socially valued goals. Topics discussed include test-taking 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 (5)**  
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 (7) (S)**  
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 (5) (W)**  
An introduction to the man-environment interaction, including psychological, sociological and physical aspects.
- SOP 4715 PSYCHOLOGICAL INFLUENCE OF CULTURE ON LEARNING AND THINKING (5)**  
An analysis of the research and theory relating cultural and societal influences of learning and thinking. Consideration is given to the controversies concerning assessment, individual and group differences. Prior course work in developmental psychology would be helpful.
- 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 (5)**  
Particular emphasis will be given to interpersonal courtroom processes. Topics considered include scientific jury selection, proxemics, persuasive argumentation, witness demeanor, eyewitness testimony, and similar influences upon juror decision making. Prerequisites: None.

**SOP 5058 ADVANCED SOCIAL PSYCHOLOGY****(5) (W)**

An in-depth examination of the role of social psychology in the social sciences and the major substantive problems as they relate to contemporary societal issues. Minimum Prerequisite: An introductory course in social psychology or its equivalent.

**SPA 5401 DISORDERS OF LANGUAGE IN CHILDHOOD****(5) (F)**

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***Required Courses:**Quarter Hours***60***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

**30**

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**90**

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.

**ANT 3086 ANTHROPOLOGICAL THEORIES****(5)**

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.

**DHE 3101 INTRODUCTION TO POPULATION ANALYSIS (5)**

An introduction to the study of population analysis. Classifications 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 (5)**

An introduction to the adaptive processes social beings make to their environment, with particular emphasis on spatial distributions of interrelated social facts 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 (5)**

A review of 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 (5)**

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 (5)**

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 (5)**

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 (5)**

A problem-oriented course emphasizing the differential behavior associated with categories such as nationalism, social class, income distribution, and political or religious affiliation.

**SOC 3000 THE SCOPE OF SOCIOLOGY (5)**

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 (5)**

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 (5)**

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) (5)**

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 (5)**

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 (5)**

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 (5)**

An introduction to more formalized behaviors that tend to provide accepted, orderly, and enduring procedures for 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 (5)**

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).

**SOC 3300 THE COMMUNITY (5)**

The social group known as the community is identified and analyzed for its distinctive qualities. By distinguishing it from other social groups, its dominating force 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 (5)**

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.

- SOC 3402 SOCIAL CHANGE** (5)  
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** (5)  
The study of society as a system, the benefits of such a conceptual approach, and related theoretical constructs.
- SOC 3500 RESEARCH METHODS** (5)  
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** (5)  
Examines the emergence of sociology as the study of social relations. Compares and contrasts the work of selected theorists, 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** (5)  
Survey of small group studies, 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** (5)  
Laboratory designed for those persons seeking to increase their effectiveness in task-oriented problem-solving work groups. It explores processes for personal growth and development and human group interaction.
- SOC 3830 THE INDIVIDUAL IN SOCIETY** (5)  
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** (5)  
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** (5)  
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** (5)  
An analysis of the basic assumptions underlying the different perspectives in sociology and anthropology.
- SOC 4003 SOCIOLOGY OF THE 20th CENTURY** (5)  
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, especially literature.
- SOC 4004 SOCIOLOGY THROUGH FILM** (5)
- SOC 4211 SOCIOLOGY OF RELIGION** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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 to an exploration of attitudes toward death, and an assessment of the implications for the respective groups involved.
- SOC. 4251 THERAPY AS A SOCIAL INSTITUTION** (5)  
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.
- SOC 4265 MAN, SOCIETY AND TECHNOLOGY** (5)  
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 4267 SOCIOLOGY OF REAL ESTATE AND LAND USE** (5)  
The study of agrarian society, pre-urban, pre-city societies. Distinctive factors associated with such social life are identified; and particular attention is given to defining indicators associated with rural society.
- SOC 4271 SOCIOLOGY OF SCIENCE** (5)  
A sociological analysis of the generation, development, and consequences of science as a social institution.
- SOC 4301 COMMUNITY ORGANIZATION** (5)  
An intensive study of how communities are organized, with special emphasis on the interactive processes of the varied components of a community. Special study, permitting students to concentrate on interest areas, is required.
- SOC 4310 URBAN SOCIOLOGY** (5)  
Study of the urban community, with particular attention to the problems associated with urban life. The development or urban societies is reviewed historically, and factors associated with this development are identified.
- SOC 4320 RURAL SOCIOLOGY** (5)  
The study of agrarian society, pre-urban, pre-city societies. Distinctive factors associated with such social life are identified; and particular attention is given to defining indicators associated with rural society.
- SOC 4331 LATIN AMERICAN AND CARIBBEAN SOCIAL STRUCTURES** (5)  
Exploration of the types of social structures, statuses, and roles, and the resulting distributions of power and authority in the hemisphere.
- SOC 4406 THE PROBLEM OF BUREAUCRACY IN THE MODERN WORLD** (5)  
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** (5)  
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** (5)  
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)** (5)  
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 stratification are analyzed.
- SOC 4423 COMPARATIVE SOCIAL SYSTEMS** (5)  
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** (5)
- SOC 4440 SOCIAL CONFLICT** (5)  
The study of conflict in society 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** (5)  
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** (5)  
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** (5)  
An upper-level seminar, stressing a comparative sociological approach to the study of two or more racial-ethnic groups. Emphasis on interrelations of ethnic communities within the same society and the socio-political 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 sub-units. 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** (5)  
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** (5)  
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** (5)  
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** (5)  
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.

- SOC 4610 THE CLASSICAL TRADITION IN SOCIAL THEORY (5)**  
An examination of the classical theorists in sociology — included are Marx, Weber, Durkheim, Pareto, Toonies and Freud.
- SOC 4611 ADVANCED SOCIAL THEORY (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**
- SOC 4745 MINORITIES/RACE AND ETHNIC RELATIONS (5)**  
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 (5)**  
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 (5)**
- SOC 4833 ROLE THEORY (5)**  
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 (5)**  
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 (5)**
- SOC 4842 SYMBOLS AND SOCIETY (5)**  
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 (VAR)**  
Supervised readings and/or field research and training. May be repeated.
- SOC 4931 HONORS SEMINAR (5)**  
Permission of instructor required.
- SOC 4941 DIRECTED FIELD RESEARCH (VAR)**  
Permission of instructor required.
- SOC 4949 COOPERATIVE EDUCATION IN SOCIAL SCIENCES (5)**  
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.
- SOC 5140 SOCIOLOGY OF LAW AND LEGAL PROCESSES (5)**
- SOC 5255 SOCIOLOGY OF MENTAL HEALTH (5)**  
A concentrated study of mental illness, with particular emphasis on definitional conceptualizations and the relationship of such to incidence data. Includes study of the social factors on the etiology of mental disorders and the epidemiology of such illnesses. Family effects of mental illness discovery and treatment are assessed, and mental health programs and their effectiveness are reviewed.
- SOC 5261 INDUSTRIAL SOCIOLOGY (5)**  
Concentrated study of industrialization and the sociological theory involved. Manpower, unemployment, apprentice programs, and classificatory schemes are studied.

- SOC 5264 CONFLICT RESOLUTION: SOCIETY AND LABOR** (5)  
 A concentrated study of conflict as evidenced in labor's relationship to society. The development of 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 precipitated within different societies and their varied economic and political systems.
- SOC 5284 SOCIOLOGY OF EDUCATION** (5)  
 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** (5)  
 A concentrated study of urban problems. Emphasis given to social policy and the role of public and private agencies in sustaining, administrating, and changing such policy. Urban problems are studied as an intermix of social, cultural, political, and economic factors. Methods of social cost analysis are discussed.
- SOC 5652 SOCIOLOGY OF ART AND LITERATURE (MODERN)** (5)
- SOC 5656 SOCIOLOGY OF KNOWLEDGE** (5)  
 The study of 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** (VAR)  
 Supervised readings and/or field research and training. May be repeated.
- SOC 5941 DIRECTED FIELD RESEARCH** (VAR)  
 Permission of instructor required.
- SSI 3010 INTRODUCTION TO SOCIAL SCIENCE** (5)  
 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** (5)  
 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 Africa 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:

<i>Required Courses:</i>	<i>Quarter Hours</i>
	<b>65</b>
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** (5) (F,W,S)  
A survey of the most recent developments in the fields of visual arts and architecture, through lectures, films and speakers. Open to all students.
- ARH 4170 GREEK AND ROMAN ART** (5)  
Lectures, slides, visitors and student research.
- ARH 4301 RENAISSANCE ART** (5)  
Lectures, slides, visitors and student research.
- ARH 4410 MODERN ART** (5)  
Lectures, slides, visitors and student research.
- ARH 4431 NINETEENTH CENTURY PAINTING** (5)  
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 neo-classicism, romanticism, realism, eroticism, pre-reaphaeliticism, luminism and impressionism will be examined.
- ARH 4470 CONTEMPORARY ART** (5)  
Lectures, slides, visitors and student research.
- ARH 4552 ART OF CHINA AND JAPAN** (5)  
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** (5)  
Lectures, slides, visitors and student research.
- ARH 4800 THEORY AND CRITICISM** (5)  
Examinations, films, lectures and slides.
- ARH 4905 DIRECTED STUDIES** (VAR)  
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 before 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** (VAR)  
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** (VAR)  
See ARH 4470.
- ARH 5552 ART OF CHINA AND JAPAN** (VAR)  
See ARH 4552.
- ARH 5615 AMERICAN ART** (VAR)  
See ARH 4610.
- ARH 5812 THEORY AND CRITICISM** (VAR)  
See ARH 4800.
- ARH 5907 DIRECTED STUDIES** (VAR)  
See ARH 4905.
- ARH 5913 RESEARCH** (VAR)  
See ARH 4910.
- ARH 5931 WOMEN AND ART** (VAR)  
See ARH 4931.
- ART 3111 CERAMICS** (5) (F,W,S,SS)  
A beginning course for art and non-art majors. Fundamentals of throwing, hand building, and glaze application.

- ART 3133 FABRICS AND FIBERS** (5) (F,W,S)  
A creative approach to fabrics and fibers, using processes such as dyeing, embroidery, quilting, soft sculpture, batik, on and off loom weaving, etc. (May be repeated).
- ART 3150 JEWELRY AND METALS** (5) (F,W,S,SS)  
A study of 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 off-hand glass blowing, concerned with preparing, forming, and finishing glass; understanding of 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. Off-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 relief printing, the student will explore specific media such as etching, lithography, silk-screen, and other experimental techniques. (May be repeated).
- ART 3510 PAINTING** (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,SS)  
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** (5)  
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** (5)  
Conceptual study of total 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** (5)  
Studio experience in conventional and experimental video processing, with an emphasis on relating contemporary developments in art theory and criticism. An international 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 teacher and pursue a course of art study in selected areas such as graphic design, film, multi-media, environmental design, sound, etc. 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 4632 FILM PRODUCTION II** (5)  
See ART 3631.
- ART 4652 VIDEO ART** (5)  
See ART 3651.
- ART 4703 SCULPTURE** (5)  
See ART 3702.
- ART 4906 DIRECTED STUDY** (VAR) (F,W,S)  
See ART 3904.
- ART 4910 RESEARCH** (VAR) (F,W,S,SS)  
See ART 3905.
- 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** (VAR)  
See ART 3702.
- ART 5907 DIRECTED STUDY** (VAR) (F,W,S,SS)  
See ART 3904.
- ART 5910 RESEARCH** (VAR) (F,W,S,SS)  
See ART 3905.
- HUM 3949 COOPERATIVE EDUCATION IN HUMANITIES** (5)  
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** (5)  
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 interdisciplinary 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 colloquium 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 MICROPALAEONTOLOGY  
 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  
 (Caribbean-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

## SOCIOLOGY

SOC 4331 LATIN AMERICAN AND CARIBBEAN SOCIAL STRUCTURES

SOC 4490 AREA STUDIES: SOCIAL STRUCTURES AND PROBLEMS

SOC 4613 THIRD WORLD THEORY

SOC 4746 SOCIAL CONFLICT IN MULTI-ETHNIC SOCIETIES

## CONSUMER AFFAIRS CERTIFICATE PROGRAM

**Director:** Milton L. Blum (*Psychology*)

**Coordinating Committee:** Myrna Crabtree (*Home Economics*), Samuel Shapiro (*Mathematical Sciences*), Ronald Tikofsky (*Psychology*).

Campus Location: Tamiami Campus only

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 International 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, industry, 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 (5)

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 (5)

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 (5)

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 (5)

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.

#### SOP 4645 CONSUMER PSYCHOLOGY (5 credits)

Factors that cause satisfaction and dissatisfaction in buying and selling transactions, and their environmental effects. Analysis of interactions between business, labor, government and the consumer.

#### SOP 4649 EXPERIMENTAL CONSUMER PSYCHOLOGY (7 credits)

This course emphasizes original research on the part of the student, using the methodologies of the Interactional Workshop and the Observational Guide.

**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 (5)**  
Effects of public policy on family incomes and expenditure patterns. Consumer behavior, advertising, and other influences affecting demand. The consumer protection movement.
- EVR 3011 ENVIRONMENTAL SCIENCE (5)**  
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 (5)**  
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 (4)**  
Survey of nutrition information relating to problems and issues of concern to today's consumers.
- HUN 3122 NUTRITION AND CULTURE (4)**  
Nutrients and their interrelationships, in reference to food habits and needs of various population groups. Introduction to the impact of culture on nutrition; and study of personal food pattern development.
- MAR 4503 CONSUMER BEHAVIOR (5)**  
The consumer as the basis for development of marketing programs by business organizations.
- PHI 4631 ETHICAL ISSUES IN BUSINESS (5)**  
Ethical dimensions of current problems and issues facing the worker or business manager.
- PUP 4203 ENVIRONMENTAL POLITICS AND POLICY (5)**  
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.

#### 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 Psychology of Language (5 credits)
  - LIN 4710 Language Acquisition (5 credits)
  - PHI 4221 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 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)

# 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 deficiencies 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 quarter-hours), of which 12 courses (60 quarter-hours) are required, and six (6) courses (30 quarter-hours) 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

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.

## 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 professor, 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:

	<i>Quarter Hours*</i>
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*

## UPPER DIVISION PROGRAM:

	<i>Quarter Hours</i>
<i>Required Courses:</i>	<b>60</b>
PAD 3702	Administrative Statistics and Data Systems
PAD 3413	Organizational Group Processes
PAD 3034	Public Policy and Its Administration
PAD 3033	Administrators and the Legislative Process
PAD 3834	International Comparative Administration
PAD 4024	Concepts and Issues in Public Administration
PAD 4103	Politics of Administrative Organizations
PAD 4414	Public Personnel Administration
PAD 4104	Organization and Administrative Theory
PAD 4804	Government and Administration of Metropolitan Areas
PAD 4432	Administrative Leadership and Behavior
PAD 4223	Budgets and the Administrative Process
<i>Electives:</i>	<b>30</b>
PAD 3204	Financing Public Organizations
PAD 3430	Personal Growth and Administrative Development
PAD 4110	Administrative Interaction in the Public Sector
PAD 4603	Administrative Law
PAD 4032	Public Choice
PAD 4415	Administration of Personnel Resources
PAD 4040	Public Values, Ethics and Morality in Changing Environment
<i>Other Electives:</i>	
List of recommended elective courses from other departments of the University is available from the SBOS counselors.	

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**90**

## 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:

	<i>Quarter Hours</i>
<i>Pre-Core Courses Required for Business Administration Students:</i>	
*ACC 3300      Accounting for Decisions	5
*ECO 3003      Economics, Man & Society	5
*STA 3132      Quantitative Methods for Administration	5
COP 3172      Basic Programming for Business	5

20

\*NOTE: STA 3132, ECO 3003 and ACC 3300 will be waived if the student received an A, B, or C in the appropriate 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	5
or	
MAN 3602      Business in the International Environment	5
ECO 3202      Applied Macroeconomics	5

MAN 4630	International Business Policy (international business majors)	
or		
MAN 4722	Policy Analysis	5

**50**

\*\*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 Miami-Dade).

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 accepted 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 of knowledge of business and accounting needed for the development and growth of the professional 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 for 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

*Elective:* ECO 3101, ECO 4623, ECO 4134,  
ENC 3353, a 4000 level finance  
course or BUL 4661, COP 3120.

*Note: Pre-core deficiencies must be  
completed in Quarter 1.*

*Quarter 5*  
ACC 4601  
ACC 4201

*Quarter 2*  
ACC 4102  
MAN 3503  
ECO 3432

*Elective:* ACC 4648, ACC 4548, ACC 4522,  
ACC 4248, ACC 4348, a 4000 level  
finance course, COP 3120.

*Quarter 3*  
ACC 4122  
MAR 3023  
MAN 3010

*Quarter 6*  
MAN 4722  
ACC 4731

*Quarter 4*  
ACC 4301  
ACC 4501

*Elective:* BUL 4661, ACC 4648, ACC 4548,  
ACC 4522, ACC 4248, or ACC  
4348.

## 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*

FIN 3403	Corporation Finance (included in the 50 quarter-hour general core)	5
FIN 4404	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	Financial History of the United States	5
FIN 4324	Commercial Bank Management	5
FIN 4344	Credit Analysis and Loan Evaluation	5
FIN 5223	Financial Management of Savings and Loans	5

*Investments:*

FIN 4502	Security Analysis	5
FIN 4504	Portfolio Analysis and Management	5
FIN 5515	Futures Trading	5

*Corporate Finance:* Students are urged to select at least three of the following courses:

FIN 4419	Capital Budgeting Techniques and Applications	5
FIN 4610	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	Principles of Insurance
RMI 4212	Property Insurance I
RMI 4213	Property Insurance II
RMI 4220	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

### (For Non-Accounting Majors)

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 satisfy 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	International Accounting
FIN 4610	International Financial Management
MAN 4600	International Management
MAN 4610	International and Comparative Industrial Relations
MAR 4243	International Marketing
MAR 4244	Export Marketing
PAD 3834	International Comparative Administration
ECS 3003	Comparative Economic Systems
ECO 4701	World Economy
ECO 4733	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*  
OMB 3150  
ACC 3303  
MAN 3010

*Quarter 4*  
ECO 3432  
One course with MAN prefix  
One elective course\*

*Quarter 2*  
FIN 3403  
MAN 3503  
MAR 3023

*Quarter 5*  
Two courses with MAN prefix  
One elective\*

*Quarter 3*  
CIS 3000  
MAN 3712  
MAN 4521

*Quarter 6*  
MAN 4722  
Two electives\*

\*Elective courses may be taken in any academic area. (Recommended departments outside SBOS are Economics, Mathematical Sciences, and Psychology.)

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*  
OMB 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 Fiedler**, 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*

**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 upper-division 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:  
 $(\text{GPA} \times 200) + (\text{GMAT score}) = 1000$ , 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 (undergraduates 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 level 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

"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 Substitute Courses <sup>1</sup>
Economics* (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 Decision-Making	MAN 6836 Systems Analysis
Accounting**	ACC 6313 Accounting For Decision-Making	ACC 6411 Managerial Accounting ACC 6391 Seminar in Managerial Accounting I 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)

<sup>1</sup>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*

*Quarter Hours*

*Required Courses:*

<b>INTERNATIONAL STUDIES</b>		<b>25</b>
ECS 5025	Economic Problems of Emerging Nations	5
*INR 5000	Topics in International Relations	5
*INR 6000	Topics in International Politics	5
PAD 6838	Development Administration	5
MAN 6713	World Dynamics & the Organization	5
<b>GENERAL BUSINESS</b>		<b>20</b>
ACC 6011	Financial Accounting Analysis	5
MAN 6205	Organizational Analysis	5
FIN 6428	Financial Management	5
MAR 6716	Marketing Management	5
<i>Specialization:</i>		
<b>ACCOUNTING:</b>		<b>15</b>
ACC 6411	Managerial Accounting	5
ACC 6275	International Accounting	5
ACC 6582	International Taxation	5
<b>FINANCE</b>		
FIN 6246	Financial Markets	5
FIN 6806	The Theory of Finance	5
FIN 6636	International Finance	5
<b>MANAGEMENT</b>		
MAN 6601	International Management	5
MAN 6603	Problems in Comparative Management	5
MAN 6604	Comparative Management Analysis	5
<b>MARKETING</b>		
MAR 6246	International Marketing	5
MAR 6617	Marketing Research	5
MAR 6717	Advanced Marketing Management	5

**60**

\*Number and title is tentative.

**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**

		<i>Quarter Hours</i>
<i>Required Courses</i>		<b>25</b>
PAD 6053	Political, Social and Economic Context of Public Administration	5
PAD 6106	Organizational Theory and Administrative Behavior	5
PAD 6227	Public Finance and the Budgetary Process	5
PAD 6706	Research Methods in Complex Public Organizations	5
PAD 6005	Public Policy	5
<i>Electives</i>		<b>35</b>
1. <i>Values and Administration</i>		
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
PAD 6605	Administrative Law and Procedures	5
2. <i>Organizational Behavior</i>		
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
3. <i>Quantitative</i>		
PAD 6701	Quantitative Methods and Computer Skills	5
CIS 6204	Management Information Systems	5
PUP 6006	Public Policy Analysis and Evaluation	5
4. <i>Administrative Issues</i>		
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. <i>State and Local Governments</i>		
PAD 6816	Regional and State Government Administration	5
PAD 6807	Urban and Municipal Government Administration	5
6. <i>International</i>		
PAD 6838	Development Administration	5
PAD 6836	International Public Administration	5
		<hr style="width: 100px; margin-left: auto; margin-right: 0;"/> 60

**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 relevant 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 pre-determines 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

		<i>Quarter Hours</i>
<i>Required Courses:</i> selected from the courses below; 15 of the required hours must be at the 600 level.		<b>20</b>
ACC 5311	Financial Accounting	5
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 <sup>1</sup>	5
ACC 6735	Seminar in Accounting Information Systems I <sup>1 2</sup>	5
ACC 6745	Seminar in Accounting Information SystemsII <sup>2</sup>	5
ACC 6411	Managerial Accounting <sup>1 2</sup>	5
ACC 6391	Seminar in Managerial Accounting I <sup>1 2</sup>	5
ACC 6845	Seminar in Managerial Accounting II <sup>2</sup>	5
ACC 6291	Seminar in Accounting Theory I <sup>1 2</sup>	5

ACC 6932	Seminar in Accounting Theory II <sup>1</sup>	5
ACC 6651	Studies in Auditing <sup>1</sup>	5
ACC 6512	Income Tax Planning and Research <sup>1 3</sup>	5
ACC 6531	Taxation of Corporations I <sup>3</sup>	5
ACC 6553	Estates and Gift Taxation <sup>3</sup>	5
ACC 6275	International Accounting <sup>1 4</sup>	5
ACC 6554	Tax Accounting Theory and Procedures <sup>3</sup>	5
ACC 6555	Consolidated Corporate Taxation <sup>3</sup>	5
ACC 6556	Partnership Taxation and Tax Shelters <sup>3</sup>	5
ACC 6557	Fiduciary Accounting and Taxation <sup>3</sup>	5
ACC 6558	Current Developments in Taxation <sup>3</sup>	5
ACC 6559	Seminar in Taxation <sup>3</sup>	5
ACC 6582	International Taxation <sup>3 4</sup>	5
ACC 6822	Behavioral Accounting	5
ACC 6832	Accounting and Quantitative Methods	5
<i>Masters Project (Required<sup>5</sup>)</i>		
ACC 6910		5
<i>Elective: Selected with permission of faculty advisor</i>		20
		<hr/>
		45

<sup>1</sup>Designed primarily for the Public Accounting subprogram

<sup>2</sup>Designed primarily for the Managerial Accounting subprogram

<sup>3</sup>Designed primarily for the Taxation subprogram

<sup>4</sup>Designed primarily for the International Accounting subprogram.

<sup>5</sup>With the approval of the graduate advisor, a student may substitute a graduate level, research-oriented accounting course for ACC 6910.

## 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:

- 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.
  - Three of the core courses are of general background type. They cover the subjects of general management, economics, and quantitative methods.
  - Three of the core courses cover specific functions in business such as accounting, the processing of information, and marketing.
- 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.
- 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	Futures Trading
FIN 6315	Management of Deposit Institutions (Banking)
FIN 6316	Management of Nondeposit Institutions
FIN 6416	Business Financial Structure
FIN 6426	Asset Selection and Management
FIN 6436	Capital Budgeting and Long-term Resource Allocation
FIN 6456	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.

## PROGRAM OF STUDY

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	Personnel 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 participation 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	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 Miami 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:

- MAN 5830 Planning for Information Systems
- MAN 5831 Analysis of Information Requirements

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 non-credit 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	Transportation Systems and Services
TRA 4410	Air Transportation
TRA 4411	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

ACC—Accounting.

#### ACC3300 ACCOUNTING FOR DECISIONS (5)

Accounting concepts and techniques essential to administration of a business enterprise and the determination of income and financial position; asset and equity accounting in proprietorships and corporations.

#### ACC 3882 INTRODUCTION TO THE ACCOUNTING PROCESS (2)

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 reinforce 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 (5)

An exploration of concepts, standards, and principles underlying financial reporting, with emphasis on the measurement, analysis, and interpretation of income and changes in financial 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 (5)

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 (5)

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 (1-5)

An in-depth study of recent developments in financial accounting. Prerequisite: ACC 4122, ACC 5111, or equivalent.

#### ACC 4271 INTERNATIONAL ACCOUNTING (5)

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 (5)

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 (1-5)

An in-depth study of recent developments in managerial accounting. Prerequisite: ACC 4301, or equivalent.

#### ACC 4501 INCOME TAX ACCOUNTING (5)

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 (5)

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 (5)

An in-depth study of recent legislative, administrative, and judicial developments in taxation. Prerequisite: ACC 4501, or equivalent.

#### ACC 4601 AUDITING (5)

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 (5)

An in-depth study of recent developments in auditing. Prerequisite: ACC 4601, or equivalent.

#### ACC 4731 ACCOUNTING SYSTEMS AND MANAGERIAL ANALYSIS (5)

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 (1-10)

Individual conferences, supervised readings, and reports on personal investigations. Written permission of the instructor, Department Chairperson, and Dean required.

- ACC 4930 SPECIAL TOPICS IN ACCOUNTING** (1-10)  
For groups of students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Written permission of the instructor, Department Chairperson, and Dean required.
- ACC 4949 COOPERATIVE EDUCATION-ACCOUNTINGII** (1-5)  
A continuation of ACC 3949
- ACC 5111 STANDARDS AND PRINCIPLES OF FINANCIAL ACCOUNTING** (5) (F,S)  
A survey of official pronouncements on accounting standards and principles. Prerequisite: ACC 4122 or 5311, or equivalent.
- ACC 5131 ADVANCED FINANCIAL ACCOUNTING** (5)  
Accounting for partnerships, consolidated financial statements, diversified and multinational corporations, fiduciary relationships, and not-for-profit institutions. Prerequisite: ACC 4122 or ACC 5311, or equivalent, or consent of instructor. (No credit given if ACC 4201 or equivalent completed previously.)
- ACC 5211 ACCOUNTING PROBLEMS** (5) (W)  
Intensive study of selected advanced accounting topics, including problems of multiple ownership; fund accounting; actuarial applications; questions and problems from recent CPA examinations. Prerequisite: ACC 5131, or equivalent, or consent of instructor.
- ACC 5311 FINANCIAL ACCOUNTING** (5)  
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** (5)  
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 if ACC 4501 or equivalent completed previously.)
- ACC 5611 AUDITING** (5)  
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 if ACC 4601, 4731, or equivalents completed previously.)
- ACC 5734 ACCOUNTING INFORMATION SYSTEMS ANALYSIS** (5)  
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 CIS 3000 or equivalent; or ACC 6011 and MAN 6830 or equivalent.
- ACC 5865 GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING** (5)  
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** (5)  
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; 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** (5) (W)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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.

- ACC 6554 TAX ACCOUNTING THEORY AND PROCEDURES (5)**  
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 (5)**  
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 (5)**  
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, farming, cattle, etc. Prerequisite: ACC 6531 or permission of the instructor.
- ACC 6557 FIDUCIARY ACCOUNTING AND TAXATION (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
The complex federal 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 foreign 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 (5)**  
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 (5) (s)**  
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 (5)**  
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 (5)**  
A continuation of ACC 6735, with emphasis on the theories underlying complex information systems. Prerequisite: ACC 6735, or equivalent.
- ACC 6822 BEHAVIORAL ACCOUNTING (5)**  
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 (5)**  
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 (5)**  
An intensive study of the controllership function in corporate organizations; an appraisal of the controller's role in planning, accounting for, and evaluating company performance. Prerequisite: ACC 6391, or equivalent.
- ACC 6907 INDEPENDENT STUDY IN ACCOUNTING (1-5)**  
Individual conferences; 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 for 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.

**ACC 6935 SPECIAL TOPICS IN ACCOUNTING****(1-5)**

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 Divisional Chairperson required.

**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—Statistics.

**ACC 3300 ACCOUNTING FOR DECISIONS****(5) (F,S,W,SS)**

Accounting concepts and techniques essential to administration of a business enterprise and the determination 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****(5)**

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****(5)**

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****(5)**

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****(5)**

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****(5)**

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. Prerequisite: ECO 3432.

**MAN 3712 BUSINESS AND SOCIETY****(5)**

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****(5)**

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 decision-making 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****(5)**

Project and case analysis on international business decision-making. Cross-functional approach emphasizes interactions among decisions, 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.

**QMB 3150 APPLICATION OF QUANTITATIVE METHODS IN BUSINESS (5)**

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, Statistics.

**STA 3132 QUANTITATIVE METHODS FOR ADMINISTRATION (5) (F,S,W,SS)**

The use of statistical tools in management; introduction of probability, descriptive statistics, and statistical 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 (5)**

A course on the effect 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 (5)**

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 (5)**

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 (5)**

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 environment. Prerequisite: MAN 3712, or consent of instructor.

**MAN 4905 INDEPENDENT STUDY IN BUSINESS ENVIRONMENT (1-10)**

Individual conferences, 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 offered in the curriculum.

**MAN 4910 INDEPENDENT RESEARCH IN BUSINESS ENVIRONMENT (1-5)**

Individual conferences, supervised research, reports on personal research.

**SSI 4125 SOCIAL SCIENCE OR BUSINESS (5)**

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 techniques 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 (5)**

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 (5)**

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 (5)**

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 4303 FINANCIAL MARKETS AND INSTITUTIONS (5)**

Financial markets and the role of financial intermediaries in these markets. Emphasis will be upon the objectives and policies of financial intermediaries within the constraints of law and regulatory authorities. Prerequisite: FIN 3403, or equivalent.

**FIN 4313 FINANCIAL HISTORY OF THE UNITED STATES (5)**

Origins of the American financial system. Early American history of financial intermediaries. Evolution in

financial legislation, policy, practice, and role of financial intermediaries. Role of the Federal Reserve System in financial markets and influence on financial policy. Prerequisite: FIN 3403, or equivalent.

**FIN 4324 COMMERCIAL BANK MANAGEMENT (5)**

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 (5)**

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. Prerequisite: FIN 3403 or equivalent.

**FIN 4404 POLICIES FOR FINANCIAL MANAGEMENT (5)**

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 (5)**

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 (5)**

The examination of the determinants of the values of common and preferred stocks, bonds, and warrants. The timing of security purchases and sales and an introduction to portfolio construction techniques. Prerequisite: FIN 3403, or equivalent.

**FIN 4504 PORTFOLIO ANALYSIS AND MANAGEMENT (5)**

Financial theories will be applied to the construction of portfolios. 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 (5)**

Capital budgeting operational analysis, and financial decisions in the multinational context. Working capital management and intrafirm 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 (5)**

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 (1-5)**

For groups of 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 (5)**

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 (5)**

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. Prerequisite: Limited to people admitted to Certificate in Banking program *only*.

**FIN 5314 WORKING CAPITAL MANAGEMENT (5)**

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 (5)**

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 (5)**

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. Prerequisite: Limited to people admitted to Certificate in Banking program *only*.

**FIN 5404 POLICIES FOR FINANCIAL MANAGEMENT (5)**

The process of securing and allocating funds within the business organization, with emphasis on the relevant financial decision-making and policy aspects. Prerequisite: Limited to people admitted to Certificate in Banking program *only*.

**FIN 5473 SMALL BUSINESS FINANCE (5)**

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 profitability. Prerequisite: FIN 3403 or FIN 6428, or equivalent.

**FIN 5515 FUTURES TRADING (5)**

An examination of the risk reward structure of stock options, commodity futures and currency futures. An

examination of the structure of the markets for these securities and strategies for their use in portfolio construction. Prerequisite: FIN 4502 or FIN 6516, or equivalent.

**FIN 6246 FINANCIAL MARKETS AND INSTITUTIONS (5)**

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 (5)**

The objectives, constraints, and policies applicable to the management of financial institutions having primary deposit functions: 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 (5)**

The objectives, constraints, and policies applicable to the management of the nondeposit financial institutions: 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 (5)**

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 (5)**

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 (5)**

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 (5)**

The applications of computer techniques to financial management of manufacturing firms and financial institutions. Prerequisite: FIN 6428, or equivalent.

**FIN 6516 SECURITY ANALYSIS (5)**

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 (5)**

Financial theories will be applied to the construction of portfolios. Portfolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial institutions. Prerequisite: FIN 6516, or equivalent.

**FIN 6636 INTERNATIONAL FINANCE (5)**

A comparative study of the institutional characteristics and internal efficiency of developed and underdeveloped capital markets. The relationships between world and capital markets and prospects for integration. The role of 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 (5)**

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 (5)**

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 tutor 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 faculty advisor is required before registering for the course. The course should be taken during the last half of the student's graduate program. Consent of faculty tutor and Department Chairperson required.

**FIN 6936 SPECIAL TOPICS IN FINANCE (1-5)**

For groups of students who desire intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty 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 (5)**

Study of the financial framework 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 of operating revenue; third party payers; budgeting for operating costs; long-term investment; and long-term financing. The student is expected to understand and be able to participate in the financial decision-making process of health care organizations.

- HCA 4711 QUANTITATIVE METHODS FOR HEALTH CARE (5)**  
This course is designed to introduce the student of health care to various techniques of health data analysis. The format and development of the course material are intended for those with little mathematical background, basic algebra being the only requirement for 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 (5)**  
The personnel administration function in the health facilities. Includes study of personnel policies and procedures; recruitment, training, and retention of employees; 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 (5)**  
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 (5)**  
This course examines illness 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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
Clinical services: medical and surgical; nursing; dietary; emergency; outpatient; pathology and laboratory; special departments.
- HCA 6302 HOSPITAL ADMINISTRATION II — MANAGERIAL SERVICES (5)**  
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 (5)**  
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 field of mental health.
- HCA 6392 SPECIAL TOPICS IN HEALTH CARE MANAGEMENT (5)**  
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 (5)**  
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 (5)**  
The course focuses 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 (5)**  
Analysis of functional areas and professional 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 (1-10)**  
Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Consent of faculty sponsor, Department Chairperson, and Dean.
- HCA 6718 APPLICATION OF MANAGEMENT SCIENCE IN HEALTH CARE (5)**  
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.

- HCA 6719 HEALTH RESEARCH AND ANALYSIS** (5)  
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** (5)  
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 RESIDENCY IN HEALTH MANAGEMENT** (5-10)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
Planning a personal program of insurance: integrating life, health and accident, property, pensions, and governmental programs.
- RMI 4135 EMPLOYEE FRINGE BENEFIT PROGRAMS** (5)  
Coverage of executive compensation; contractual agreements; benefit formulas; financing of death, disability, 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** (5)  
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 INSURANCE I** (5)  
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** (5)  
Multiple-line risk and risk management; the multiple-line insurance industry; property and liability hazards and policy contracts; functional aspects of underwriting, rate making, and claims handling.
- RMI 4220 CASUALTY INSURANCE I** (5)  
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** (5)  
A continuation of RMI 4220, but including agency management and company administration.
- RMI 4305 RISK MANAGEMENT** (5)  
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** (5)  
Legal environment and essentials of the law particularly applicable to the business of insurance. Emphasis on statutory regulation in Florida.
- RMI 4500 SOCIAL INSURANCE** (5)  
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**  
Examination 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.

- RMI 4935 SPECIAL TOPICS IN INSURANCE** (1-10)  
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.
- RMI 6055 GRADUATE SURVEY OF INSURANCE** (5)  
Graduate examination of current problems in insurance, including theory; uses of insurance in business organizations; property and liability insurance; health insurance; and life insurance.
- RMI 6912 INDEPENDENT STUDY IN INSURANCE** (1-10)  
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
- RMI 6936 SPECIAL TOPICS IN INSURANCE** (1-10)  
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.

## BUSINESS LAW

### DEFINITION OF PREFIX

BUL—Business Law

- BUL 4111 BUSINESS LAW I** (5)  
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** (5)  
Bailments, shipment and sale of goods; suretyship; bankruptcy; commercial paper; real and personal property; insurance; relevant provisions of the uniform commercial code.
- BUL 4661 LAW FOR ACCOUNTANTS** (5)  
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** (5)  
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 antitrust 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 of faculty tutor and Department Chairperson required.
- BUL 4650 SPECIAL TOPICS IN BUSINESS LAW** (1-10)  
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.
- BUL 6124 SURVEY OF BUSINESS LAW** (5)  
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** (1-10)  
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
- BUL 6651 SPECIAL TOPICS IN BUSINESS LAW** (1-10)  
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** (1-5)  
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 faculty advisor prior to enrollment. Prerequisite: qualification for Cooperative Education Program.
- MAN 4120 INTERGROUP RELATIONS IN ORGANIZATION** (5)  
A study of the psychological and sociological dimensions of intergroup relations. Attention to the 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 MANAGEMENT** (5)  
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** (5)  
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 (5)**  
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 resource management and development at various organizational levels.
- MAN 4320 PERSONNEL RECRUITMENT AND SELECTION (5)**  
In-depth study of the personnel staffing function. Includes an analysis of objectives, techniques, and procedures for forecasting manpower needs, recruiting candidates, and selecting employees.
- MAN 4322 PERSONNEL INFORMATION SYSTEMS (5)**  
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 (5)**  
Presents the theories and techniques used by management in the areas of work measurement, wage incentives and job evaluation.
- MAN 4401 INDUSTRIAL RELATIONS (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
Examines selected industrial relations systems of Western Europe, Asia and the Americas, with special 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 (5)**  
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 (5)**  
This course is intended for students interested in the present and future status of female managers. It will focus 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 (5)**  
Survey of 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 (5)**  
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 (5)**  
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 field studies will be used as a basis for course projects.
- MAN 4830 DILEMMAS OF RESPONSIBILITY IN BUSINESS MANAGEMENT (5)**  
The use of 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 affairs, and quality of public facilities.

- MAN 4905 INDEPENDENT STUDY** (1-10)  
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required. CR/NC only.
- MAN 4930 SPECIAL TOPICS** (1-10)  
For students who wish 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. Grade option.
- MAN 4949 COOPERATIVE EDUCATION — MANAGEMENT II** (1-5)  
Continuation of MAN 3949. Prerequisites: MAN 3949, and qualification for Cooperative Education Program.
- MAN 5123 HUMAN INTERACTION I: PERSONAL GROWTH LABORATORY** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
The social and psychological processes of organizational functioning. The roles played by small groups in organizational settings.
- MAN 6121 INTERPERSONAL BEHAVIOR AND ANALYSIS** (5)  
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** (5)  
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); agenda-setting; feedbacks; coaching; third-party consultation for conflict management; and team training. Prerequisite: MAN 5123.
- MAN 6213 CONFLICT IN ORGANIZATIONS** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
Determining training needs. Training methods. The training staff. Supervisor development. Equal Employment Opportunity management.
- MAN 6403 GOVERNMENT AND INDUSTRIAL RELATIONS** (5)  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
Graduate seminar focusing on management issues confronting the multinational enterprise. Includes basic trade theory; tariffs and trade barriers; organizational transfer; foreign exchange; international financial management; export-import procedures; comparative business customs; personnel management; and institutions affecting the multinational manager.
- MAN 6603 PROBLEMS IN COMPARATIVE MANAGEMENT (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (1-10)**  
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 (5)**  
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 SEMINAR IN MANAGEMENT (1-5)**  
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 (1-10)**  
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 faculty member in the School.
- MAN 6930 SPECIAL TOPICS IN MANAGEMENT (5)**  
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 tutor and Department Chairperson required. Grade option.
- QMB 4680 SIMULATION OF MANAGEMENT SYSTEMS (5)**  
Exploration of basic concepts in computer simulation of systems. Application of these concepts to a variety of managerial problems. Discussion of waiting line models; continuous simulation models;

heuristic methods; and management games. Presentation of several computer programs and languages for simulation. Exposure to the operation and analysis of some simulation models. Prerequisites: QMB 3150, CIS 3000.

**QMB 4700 PRINCIPLES OF OPERATIONS RESEARCH I (5)**

Application of 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 rescheduling. Prerequisite: MAN 4720.

**QMB 6805 DETERMINISTIC MODELS FOR MANAGEMENT ANALYSIS (5)**

Applications 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 (5)**

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. Management games.

**QMB 6855 STOCHASTIC MODELS FOR MANAGEMENT ANALYSIS (5)**

Applications of probabilistic models (such as queuing, inventory, and renewal) to their managerial problems.

**QMB 6875 STOCHASTIC MODELS FOR PROJECT MANAGEMENT (5)**

Review of 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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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: QMB 6603, or equivalent.

**MAN 6713 WORLD DYNAMICS AND THE ORGANIZATION (5)**

A macro-examination of economic, political, and cultural variables affecting the organization. Emphasis will be placed on social indications and societal forecasting of change; organizational responses to change; and the nature and rate of change in different societies.

**MAN 6721 MANAGERIAL DECISION-MAKING (5)**

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 (5)**

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.

- MAN 6725 THE ORGANIZATION AND THE INTRA-NATIONAL ENVIRONMENT (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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-turn; and sales and stock planning.
- MAR 4154 CASES IN RETAILING MANAGEMENT (5)**  
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 (5)**  
The course focuses upon institutions, functions, and flows within channels of distribution; and their integration into channels systems. Wholesaling and physical activity are emphasized. Same course as TRA 4203.
- MAR 4213 TRANSPORTATION LOGISTICS (5)**  
(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 (5)**  
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 (5)**  
This course emphasizes practical approaches to export marketing, including marketing strategies by individual firms 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 (5)**  
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 (5)**  
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 (5)**  
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** (5)  
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** (5)  
The course offers an introduction to the analysis of the consumer, as the basis for the development of the marketing mix.
- MAR 4613 MARKETING RESEARCH** (5)  
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** (5)  
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 of independent study in marketing.
- MAR 4704 CURRENT ISSUES IN MARKETING II** (5)  
Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 4703.
- MAR 4713 CASES IN MARKETING MANAGEMENT** (5)  
An analytic approach to the performance to marketing management. The elements of marketing mix as the focus of decision-making in marketing are studied, and the case method of instruction is employed.
- MAR 4723 MARKETING OF SMALL BUSINESS ENTERPRISES** (5)  
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** (5)  
A policy and operational analysis of legislative acts and judicial interpretations of laws influencing organizations engaged in marketing activities.
- MAR 4753 MARKETING GAME COMPETITION** (5)  
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 firms.
- MAR 4773 REAL ESTATE MARKETING** (5)  
(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** (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.
- 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** (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.
- MAR 6246 ADVANCED INTERNATIONAL MARKETING** (5)  
This course discusses the nature and scope of international marketing, and explores multinational problems facing firms and other international marketing organizations, together with strategies for foreign market penetration.
- MAR 6346 ADVANCED PROMOTIONAL STRATEGY** (5)  
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** (5)  
Modern comprehensive models of consumer behavior are utilized as a framework for understanding consumer decision processes.
- MAR 6606 QUANTITATIVE METHODS IN MARKETING** (5)  
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** (5)  
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** (5)  
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 of independent study in marketing.
- MAR 6707 CURRENT ISSUES IN MARKETING II** (5)  
Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 6706.

- MAR 6717 ADVANCED MARKETING MANAGEMENT** (5)  
Course emphasis is on application and integration of concepts and tools, through participation in the marketing management of a firm in competition with other firms. The course's focal point is a computerized marketing management simulation.
- MAR 6915 INDEPENDENT STUDY IN MARKETING** (1-10)  
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 offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
- MAR 6971 MASTER'S PROJECT** (5)  
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 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—Quantitative Methods in Business.

- CIS 6204/MAN 6830 MANAGEMENT INFORMATION SYSTEMS** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
Quantitative techniques useful to public administration, non-parametric techniques, probability concepts, and decision techniques are presented; as well as concepts underlying the use of data systems.
- PAD 3834 INTERNATIONAL COMPARATIVE ADMINISTRATION** (5)  
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** (5)  
The function of administrative institutions in society. 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** (5)  
Some historical analysis of the origin and concept of the public interest in public administration. The various formulations 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** (5)  
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.
- PAD 4103 POLITICS OF ADMINISTRATIVE ORGANIZATION** (5)  
The role of political processes in relationship to public organizations and the types of intra- and inter-

organizational politics which are unique to public organizations. Effects of these political processes upon organizational performance and their role in promoting or thwarting organizational change.

**PAD 4104 ORGANIZATION AND ADMINISTRATIVE THEORY (5)**

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 federal, state and local government levels.

**PAD 4110 ADMINISTRATIVE INTERACTION IN THE PUBLIC SECTOR (5)**

Definition 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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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.

- PAD 6053 POLITICAL, SOCIAL AND ECONOMIC CONTEXT OF PUBLIC ADMINISTRATION (5)**  
Examines the context in which public organizations operate, stressing the relationship between such 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 (5)**  
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 (5)**  
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 reference to public organizations.
- PAD 6227 PUBLIC FINANCE AND THE BUDGETARY PROCESS (5)**  
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 (5)**  
This course focuses 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; unique public personnel management problems; governmental unionization and collective bargaining; and future perspectives in personnel administration.
- PAD 6437 DYNAMICS OF INDIVIDUAL GROWTH (5)**  
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 (5)**  
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-and-balance system; discretionary justice; and others.
- PAD 6706 RESEARCH METHODS IN COMPLEX PUBLIC ORGANIZATIONS (5)**  
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 (5)**  
Detailed examination of problems facing 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 (5)**  
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 (5)**  
The role of public administration systems around the world; and the impact of political and socio-cultural frameworks 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 (5)**  
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 (1-10)**  
Individual conferences; supervised readings; reports on personal investigations and similar undertakings. Consent of faculty sponsor and Department Chairperson required.
- PAD 6915 INDEPENDENT RESEARCH IN PUBLIC ADMINISTRATION (1-10)**  
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.
- PAD 6948 PUBLIC ADMINISTRATION INTERNSHIP (1-10)**  
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**

(5)

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**

(5)

A framework for 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 6603 QUANTITATIVE METHODS AND COMPUTER SKILLS**

(5)

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**

(5)

A course suitable for students 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**

(5)

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 events; 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**

(5)

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**

(5)

Detailed analysis of demographic methods applied to the urban environment.

**GEO 5605 URBAN GEOGRAPHY**

(5)

Geographical approach to city systems; consideration of the contribution of geographers to urban analysis; field project.

**REE 3040 INTRODUCTION TO REAL ESTATE**

(5)

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**

(5)

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**

(5)

Theories and techniques of professional management of real estate including such topics as creating a management plan; merchandising space; economics of alternatives; 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**

(5)

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**

(5)

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**

(5)

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.

- REE 4710 REGIONAL DEVELOPMENT (5)**  
Measurement and forecasting of economic activity in an urban/regional context; factors influencing economic growth and land allocation. Prerequisite: REE 3040, or permission of instructor.
- REE 4731 URBAN LAND PLANNING AND USE (5)**  
Theories of city growth and structure, operations of the real estate market in land allocation; application of above concepts to current practices in city and regional planning. Prerequisite: REE 3040, or permission of instructor.
- REE 4730 URBAN LAND ACQUISITION AND DEVELOPMENT (5)**  
Real estate development; acquisition of raw land; zoning; subdivision into sites; provision of utilities and services; financing, 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 (5)**  
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 4800 REAL ESTATE MARKETING (5)**  
Organization and operation of a real estate 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 tutor and Department Chairperson required.
- REE 4930 SPECIAL TOPICS IN REAL ESTATE (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.
- REE 6020 INDUSTRIAL REAL ESTATE I (5)**  
General overview of industrial real estate, focusing on types of activities; locational requirements; financing techniques; brokerage; government influence; current trends; technological change; characteristics of industrial buildings.
- REE 6021 INDUSTRIAL REAL ESTATE II (5)**  
Introduction to investment and valuation problems in industrial real estate. Topics include: taxation 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 (5)**  
Valuation and appraisal framework applied to income properties; capitalization; rates and techniques; discounting, and compound interest; mortgage-equity analysis. Includes Ellwood analysis; the role of computers; valuation as a guide to business decisions.
- REE 6121 REAL ESTATE MANAGEMENT (5)**  
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 6195 SEMINAR IN REAL ESTATE VALUATION THEORY & PRACTICE (5)**  
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: Graduate standing and permission of instructor.
- REE 6200 REAL ESTATE FINANCE (5)**  
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 (5)**  
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 6295 SEMINAR IN REAL ESTATE FINANCE (5)**  
A study of financial institutions, their methods; and inter-regional flows of funds in mortgage markets. Further emphasis is placed on national economic policies affecting mortgage markets. Prerequisite: Graduate standing and permission of instructor.
- REE 6301 REAL ESTATE INVESTMENT (5)**  
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.
- REE 6395 SEMINAR IN REAL ESTATE INVESTMENT AND TAXATION (5)**  
The techniques of real estate investment analysis, utilizing present value and cash flow approaches. The impact of Federal taxation on real estate investment decision. Prerequisite: Graduate standing and permission of instructor.
- REE 6710 REGIONAL DEVELOPMENT (5)**  
Measurement and forecasting of economic activity in an urban/regional context; factors influencing economic growth and land allocation. Prerequisite: REE 3040, or permission of instructor.

- REE 6715 REGIONAL PLANNING AND DEVELOPMENT** (5)  
Methods of measuring and forecasting economic activity, and issues in allocating urban land. Techniques for analysis of government policies affecting urban growth and development. Prerequisite: Graduate standing and permission of instructor.
- REE 6730 URBAN LAND ACQUISITION AND DEVELOPMENT** (5)  
Real estate development: acquisition of raw land, zoning, subdivision in sites; provision of utilities and services, financing, merchandising of improved sites. Emphasis on design and development of residential communities. Prerequisite: REE 3040, or permission of instructor.
- REE 6750 REAL ESTATE AND REGIONAL DEVELOPMENT POLICY** (5)  
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** (5)  
Examination of national housing policies and their formulation; the role of the public and private sectors in regard to housing problems; effectiveness of various housing policies. Prerequisites: RES 6715, and permission of instructor.
- REE 6800 REAL ESTATE MARKETING** (5)  
Organization and operation of a real estate 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 6820 INDUSTRIAL BROKERAGE** (5)  
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** (1-10)  
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
- REE 6932 SPECIAL TOPICS IN REAL ESTATE** (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.
- REE 6935 SEMINAR IN INTERNATIONAL REAL ESTATE** (5)  
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** (5)  
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** (5)  
Introductory course to the urban phenomenon; historical and contemporary consideration of cities; functions and purposes of cities; economic, social, and cultural aspects of urbanization.
- URP 4023 URBAN AND REGIONAL ANALYSIS** (5)  
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 linear-programming. Urban structure and performance.
- URP 4027 URBAN PROBLEMS AND POLICIES** (5)  
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** (5)  
General examination of selected 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** (1-10)  
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor 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** (5)  
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** (5)  
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** (5)  
Relationship of cities and space; designs for urban living; architectural and aesthetic considerations;

human welfare 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 conferences; supervised readings; reports on personal investigations. Consent of faculty tutor 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 offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
- URS 5925 FACULTY-STUDENT WORKSHOP IN URBAN STUDIES (5)**  
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 (5)**  
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—Transportation.

- TRA 4012 TRANSPORTATION LOGISTICS (5)**  
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 (5)**  
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 (5)**  
Distribution in overall company operations; organization of 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 (5)**  
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 (5)**  
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 (5)**  
Consideration of national transportation policy; the principal policy issues currently facing the transportation modes.
- TRA 4410 AIR TRANSPORTATION (5)**  
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 manufacturing and operation; air traffic control; and airport support and functions.
- TRA 4411 AIRPORT MANAGEMENT (5)**  
Application of management principles to airport operation, with emphasis on unique characteristics of airport finance; government relations and regulations; airline relations and interdependence.
- TRA 4412 AIRCARRIER MANAGEMENT (5)**  
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 (5)**  
Urban and metropolitan transportation development; requirements, benefits and costs of alternative approaches to mass transit; management techniques and operating principles; policy and regulation.
- TRA 4906 INDEPENDENT STUDY IN TRANSPORTATION (1-10)**  
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor 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.
- TRA 4941 TRANSPORTATION INTERNSHIP (1-10)**  
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 (5)**  
Quantitative methods applied to solving problems in business logistics; mathematical and statistical models; optimization theory and simulation. Problems selected from areas of physical distribution management, inventory control, mode selection, and facility locations.

**TRA 5401 TRANSPORTATION OPERATIONS AND CARRIER MANAGEMENT (5)**

Contemporary management techniques as applied to carriers; management problems peculiar to transportation firms; economic analysis of marketing problems; capital formation; costs; pricing; labor relations; and government regulation.

**TRA 5601 PUBLIC UTILITY PRINCIPLES (5)**

An analytical and descriptive survey course, treating the historical development of public utilities. The economics, legal environment, and organization of 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 (5)**

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 (1-10)**

Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

**TRA 6936 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.



# 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 multi-cultural 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 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 (5)

or

EDP 3004 Introductory Educational Psychology (5)

### *Social Foundations*

SOC 3281 School and Society (5)

or

EDF 3542 Philosophies of Education (5)

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 (5)

EDG 3321 General Teaching Lab I: Basic Teaching Skills (5)

EDG 3322 General Teaching Lab II: Human Relation Skills (5)

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 specific 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 in-service 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*  
**John J. Kampsnyder**, *Associate Professor*  
**Sarah W. J. Pell**, *Associate Professor*  
**James D. Wells**, *Associate Professor*  
**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*

	<i>Quarter Hours</i>
<i>Core Requirements:</i>	<b>16</b>
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
<i>Other Courses:</i>	<b>23-25</b>
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
<i>Electives:</i> from Education, School of Business and Organizational Sciences, or College of Arts and Sciences	4-6
	<b>45</b>

## SECONDARY SCHOOL ADMINISTRATION AND SUPERVISION

Campus Location: *Tamiami Campus only*

DEGREE: *Master of Science*

	<i>Quarter Hours</i>
<i>Core Requirements:</i>	<b>16</b>
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

<i>Other Courses:</i>		<b>23-25</b>
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	4
EDA 6223	Emerging Designs for School Organization and Staff Utilization	4
ESE 6215	Secondary School Curriculum	4
EDA 6943	Supervised Field Experience	3-5
<i>Electives:</i> from Education, School of Business and Organizational Sciences, or College of Arts and Sciences		<b>4-6</b>
		<hr/> <b>45</b>

## GENERAL SCHOOL ADMINISTRATION AND SUPERVISION

Campus Location: Tamiami Campus only

Degree: *Master of Science*

		<i>Quarter Hours</i>
<i>Core Requirements</i>		<b>16</b>
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
<i>Other Courses</i>		<b>31-33</b>
EDA 6510	The Administration of an Elementary School	4
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	4
EDA 6223	Emerging Designs for School Organization and Staff Utilization	4
EDE 6205	Curriculum Design for Childhood Education	4
ESE 6215	Secondary School Curriculum	4
EDA 6943	Supervised Field Experience	3-5
		<hr/> <b>47-49</b>

## 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/Non-Public School Administration (not a certification program).

## ADMINISTRATION AND SUPERVISION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

	<i>Quarter Hours</i>
<i>Required Core:</i> to be selected with an advisor from the following:	<b>24-28</b>
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 Program Development in Adult and Vocational Education: Community/Institutional Level	4
EDF 5481 Analysis and Application of Educational Research	4
RED 6333 Teaching Reading in the Secondary School	4
ADE course as elective	4
<i>Area of Professional Emphasis:</i>	<b>12</b>
Option A: Public School Administrator Certification (12)	
EDA 6061 The Organization and Operation of Public School Systems	4
EDS 6050 Supervision in Education	4
EDG 6250 Curriculum Development	4
<i>or</i>	
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.	
<i>Electives:</i> 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.	<b>5-9</b>
	<b>45</b>

## CURRICULUM AND INSTRUCTION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

<i>Required Core:</i>	<b>24</b>
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 Program Development in Adult and Vocational Education: Community/Institutional Level	4
ADE 5383 Program Development in Adult Education: Instructional/Activity Level	4
ADE course as elective	4
<i>Area of Professional Emphasis:</i>	<b>12</b>
EVT 5168 Curriculum Development in Vocational Education	4
<i>or</i>	
EDG 6250 Curriculum Development	4
EDF 5287 Instructional Technology	4
EDF 5481 Analysis and Application of Educational Research	4
<i>Electives:</i>	<b>9</b>
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.	<b>45</b>

## COURSE DESCRIPTIONS

### DEFINITIONS OF PREFIXES

ADE—Adult Education; EDA—Education: Administration; EDE—Education: Elementary; EDF—Education: Foundations; EDG—Education: 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** (4) (S)  
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** (4) (S)  
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,SS)  
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** (3-5) (ARR)  
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 effective selection and utilization 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 clarification 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 of alternatives to traditional school organization and staffing, and possible future alternatives in public education.
- EDA 6510 THE ADMINISTRATION OF AN ELEMENTARY SCHOOL** (4) (F,S)  
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 function as the principal of a secondary school, with particular attention to the urban setting. 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 for 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 of 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 problem-oriented workshop.
- EDA 6930 SEMINAR IN SCHOOL ADMINISTRATION/SUPERVISION** (3) (S)  
In-depth study of 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 of 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,SS)  
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,SS)  
Development of skills in curriculum evaluation and strategies for improvement of on-going curriculum. Prerequisite: EDG 6250.
- EDS 6050 SUPERVISION IN EDUCATION** (4) (W,SS)  
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)  
Identification 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 effective group functioning; developing a consensus group philosophy; designing, conducting and interpreting studies of community objectives; mobilizing and integrating resources; planning, conducting and interpreting evaluation studies.
- ADE 5195 DESIGNING EDUCATIONAL PROGRAMS FOR DISADVANTAGED ADULTS** (4) (S)  
Distinguishing various forms of disadvantage; 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 affecting 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 for adult learners.

- ADE 5385 ADULT TEACHING AND LEARNING** (4) (W,SS)  
 Differentiating theories of learning in relation to teaching adults; contrasting characteristics of adults as opposed to youth; evaluating the implications of such distinctions in relation to learning situations appropriate for adults.
- ADE 5906 INDIVIDUAL STUDY IN ADULT EDUCATION** (1-5) (F,W,S,SS)  
 Specialized intensive study in areas of interest to the student. Subject to approval of program adviser.
- ADE 5925 WORKSHOP IN ADULT EDUCATION** (3-15) (APR)  
 Short-term intensive development of selected operational competencies related to instructional, curricular and/or administrative skills, practices, and procedures of special interest to students in adult education.
- ADE 5935 SPECIAL TOPICS IN ADULT EDUCATION** (1) (APR)  
 "Mini-courses" which provide for an examination of special facets of adult education.
- ADE 5945 SUPERVISED FIELD EXPERIENCES IN ADULT EDUCATION** (1-15) (F,W,S,SS)  
 Internship placements in various on-going adult education programs, according to students' needs and interests. On-site supervisory visits are made by program advisor. Joint conferences and seminars involving the student, the program advisor, and an appropriate representative of the cooperating agency are also conducted intermittently.
- ADE 6930 SEMINAR IN ADULT EDUCATION** (2-4) (S)  
 Provides intensive study of instructional, curricular, and/or administrative principles and practices, for the solution of problems of special interest to students in adult education.

## DIVISION OF CHILDHOOD EDUCATION

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| <p><b>George S. Morrison</b>, <i>Professor and Chairperson</i></p> <p><b>William A. Jenkins</b>, <i>Professor</i></p> <p><b>Edythe Margolin</b>, <i>Professor</i></p> <p><b>Nicholas J. Vigilante</b>, <i>Professor</i></p> <p><b>Richard L. Campbell</b>, <i>Associate Professor</i></p> <p><b>Arthur D. Dempsey</b>, <i>Associate Professor</i></p> <p><b>Kathleen A. Gurucharri</b>, <i>Associate Professor</i></p> | <p><b>Edward M. Reichbach</b>, <i>Associate Professor</i></p> <p><b>Emma W. Rembert</b>, <i>Associate Professor</i></p> <p><b>Zola J. Sullivan</b>, <i>Associate Professor</i></p> <p><b>Sharon W. Kossack</b>, <i>Assistant Professor</i></p> <p><b>Grover C. Mathewson</b>, <i>Assistant Professor</i></p> <p><b>Alicia Mendoza</b>, <i>Assistant Professor</i></p> <p><b>John Stinson, Jr.</b>, <i>Assistant Professor</i></p> |
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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 fulfilled 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

Campus Location: Tamiami and North Miami Campuses.

DEGREE: *Master of Science*

	<i>Quarter Hours</i>
<i>General Professional Education:</i>	
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
<i>Area of Specialization:</i>	
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
<i>Electives:</i>	9
	45

## EARLY CHILDHOOD EDUCATION

Campus Location: Tamiami and North Miami Campuses.

DEGREE: *Master of Science*

	<i>Quarter Hours</i>
<i>General Professional Education:</i>	
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
<i>Area of Specialization:</i>	
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
<i>Electives:</i>	9
	45

## READING

Campus Location: Tamiami and North Miami Campuses.

DEGREE: *Master of Science*

	<i>Quarter Hours</i>
<i>General Professional Education:</i>	
EDF 5481 Analysis and Application of Educational Research	4
EDE 6205 Curriculum Design for Childhood Education	4
EDF 5430 Measurement and Evaluation in Education	4
<i>Area of Specialization:</i>	
(Courses to be selected in consultation with your advisor)	29
<i>Electives:</i>	4
	45

## COURSE OFFERINGS

### DEFINITION OF PREFIXES

ARE—Art Education; EDE—Education: Elementary; EEC—Education: Early Childhood; FLE—Foreign Language Education; HLP—Healthy, Leisure, and Physical Education; LAE—Language Arts and English Education; MAE—Mathematics Education; MUE—Music Education; RED—Reading Education; SCE—Science Education; SSE—Social Studies Education.

- ARE 3313 EXPERIENCING ART IN THE ELEMENTARY SCHOOL** (5) (F,W,S,SS)  
 Designed to provide the student with competencies necessary for the development and implementation of art experiences in the elementary curriculum. Prerequisites: EDF 3827, EDG 3321, EDG 3322. Art skills or equivalent.
- 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)  
 Refinement of skills related to program development, methods 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 teacher associate, 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 institutions 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 education. Examination of materials and techniques of teaching and working with parents. Observation and participation are required. Senior class status required.
- EEC 4301 EARLY CHILDHOOD EDUCATION PROGRAMS** (5) (F,S)  
 Philosophy and theories of early 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** (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 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** (5) (S)  
 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 family life. Prerequisites: EDF 3827, EDG 3321, EDG 3322.

- LAE 4314 COMMUNICATION SKILLS II** (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 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)** (4) (W)  
 Refinement of 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)** (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)  
 Refinement 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 of 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)  
 Refinement 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; continuity of school wide programs; emphasis on leadership responsibilities. Prerequisites: EDF 5481, EDF 5430.
- RED 6305 INSTRUCTION IN READING (EARLY CHILDHOOD)** (4) (F,SS)  
 Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.
- RED 6337 TEACHING READING IN THE SECONDARY SCHOOL** (4) (W)  
 Development of skills necessary to identify 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 deficiencies. Special attention to reading problems of students in the specific subject areas. Prerequisite: one course in reading.

- RED 6515 PROGRAMS OF REMEDIATION IN READING** (5) (W)  
 A course demonstrating corrective and remedial procedures; application of specific psychological, pedagogical, and psychotherapeutic techniques. Prerequisites: RED 4310, RED 6546, or their equivalents.
- RED 6546 DIAGNOSIS OF READING DIFFICULTY** (5) (F)  
 Technique for analyzing 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** (4) (S)  
 An analysis of reading difficulties, through various teaching techniques and programs.
- RED 6845 CLINICAL PROCEDURES IN READING** (4) (SS)  
 Supervised experience, resulting in diagnosis, prescription and evaluation of particular children in a clinical setting.
- SCE 4310 INQUIRY IN SCIENCE 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 science as a mode of inquiry. Prerequisites: EDF 3827, EDG 3321, EDG 3322.
- SCE 6306 INSTRUCTION IN SCIENCE (EARLY CHILDHOOD)** (4) (F)  
 Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.
- SCE 6315 INSTRUCTION IN SCIENCE (ELEMENTARY)** (4) (F)  
 Refinement of skills related to program development, methods of teaching, selection of materials, and 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 of research, in elementary education.

## DIVISION OF PSYCHO-EDUCATIONAL SERVICES

Donald C. Smith, *Professor and Chairman*  
 Wendy J. Cheyney, *Associate Professor*  
 Marisol R. Gavilan, *Associate Professor*  
 Daniel A. Kennedy, *Associate Professor*  
 David E. Nathanson, *Associate Professor*  
 Colleen A. Ryan, *Associate Professor*  
 Stephen S. Strichart, *Associate Professor*

Jethro W. Toomer, *Associate Professor*  
 Carlos M. Alvarez, *Assistant Professor*  
 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 development 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:

		<i>Quarter Hours</i>
<i>Professional Education:*</i>		<b>80</b>
EDF 3604	Schooling in American K-14	5
EDG 3321	General Teaching Lab I	5
EDG 3322	General Teaching Lab II	5
EEX 3010C	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
BSC 3023	Human Biology	5
<i>or</i>		
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:		
EMR 4360	Educational Planning for the Mentally Retarded	
<i>or</i>		
ELD 4322C	Educational Planning for Specific Learning Disabilities	5
<i>or</i>		
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.		
<i>Electives:</i>		<b>10</b>
		<hr style="width: 100px; margin-left: auto; margin-right: 0;"/> 10
		<b>90</b>

## 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 recommendations, 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.

	<i>Quarter Hours</i>
<i>General Professional Education:</i>	<b>4</b>
EDF 5481      Analysis & Application of Educational Research	4
<i>Area of Specialization</i>	<b>28-33</b>
*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 Learning Disabilities	4
<i>or</i>		
EED 6226	Advanced Theory and Practice: Behavior Disorders	
EEX 6863	Supervised Field Experience in Special Education	5
EGC 6001	Professional Problems I	2
EGC 6462	Professional Problems II	2
EEX 6211	Assessment of Behavior !	5
EGC 6616	Program Evaluation in Pupil Personnel Services	4
EGC 6605	Professional Problems, III	2

*Electives:*

**7-13**

### 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:

		<i>Quarter Hours</i>
EMR 4360	Educational Planning for the Mentally Retarded	
<i>or</i>		
ELD 4322C	Educational Planning for Specific Learning Disabilities	5
<i>or</i>		
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 to five of the following courses depending on the student's preparation, EEX 6612, EEX 6227, EEX 6106, EEX 6846, EEC 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*

		<i>Quarter Hours</i>
<i>General Professional Education:*</i>		<b>4</b>
EDF 5481	Analysis and Application of Educational Research	4
<i>Area of Specialization:</i>		<b>64-69</b>
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 6725	Human Interaction I: Group Process Laboratory	5
EGC 6726	Human Interaction II: Analysis of Group Participation	5
EGC 6709**	Human Interaction III: Organizational Consultation	5
EGC 6462	Professional Problems II	2
EGC 6616	Program Evaluation in Pupil Personnel Services	4
EGC 6203	Measurement and Appraisal in Counseling	4
EGC 6822	Advanced Practica in Counseling and Consultation	5
EGC 6605	Professional Problems III	2
EGC 6890	Supervised Field Experience in Pupil Personnel Services	15

\*The student should consult with his or her advisor to establish whether additional requirements must be met in general professional education (Fds. of Ed.; Gen. Methods).

\*\*Required only in community counseling.

*Electives:*

**17-22**

**90**

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:\**

**4**

EDF 5481	Analysis and Application of Educational Research	4
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\*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:*

**69-75**

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 I	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

**4-12**

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—Education: Guidance and Counseling; ELD—Education: Specific Learning Disabilities; EMR—Education: Mental Retardation; SPA—Speech Pathology and Audiology.

### SPECIAL EDUCATION

- EED 4227C 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 skills 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 concepts in relation to the learning and adjustment 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 perceptual-motor processes), and the language areas of reading, writing, spelling and arithmetic.
- EEX 4241 ACADEMIC SKILLS FOR EXCEPTIONAL CHILDREN, I** (5) (F,SS)  
 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 multi-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,SS)  
 Concepts and skills for 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,SS)  
 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 student 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 of assessment theory to 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 to various instructional strategies and behavioral models.
- EEX 6736 DIAGNOSTIC TEACHING: CONSULTATION AND LEADERSHIP SKILLS** (4) (S,SS)  
 Skills in parent consultation and education.

- EEX 6846 DIAGNOSTIC TEACHING: ADVANCED PRACTICUM** (4) (S,SS)  
Application of 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 full range of competencies in diagnostic teaching learned throughout the program. Internship placements include a variety of field 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 education, developed in short-term, intensive workshops.
- ELD 4322C EDUCATIONAL PLANNING FOR SPECIFIC LEARNING DISABILITIES** (5) (W,SS)  
Concepts and skills with various models of curriculum, instruction, and classroom designs for individuals with specific learning disabilities. Laboratory experiences required. Prerequisites: EEX 4241, EEX 4601.
- ELD 6323 ADVANCED THEORY AND PRACTICE: SPECIFIC LEARNING DISABILITIES** (4) (S,SS)  
Major concepts in the area of specific learning 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) (S,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,SS)  
Skills in assessing and classroom programming for language development and for 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, role-playing, 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 PRACTICE: 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 6709 HUMAN INTERACTION III: ORGANIZATIONAL CONSULTATION (5) (S)**  
 Theoretical concepts and skills in organizational development and change. Competencies in systems diagnosis and assessment, consultation, agenda setting, team building, decision-making and feedback. Prerequisite: EGC 6726.
- EGC 6725 HUMAN INTERACTION I: GROUP PROCESS LABORATORY (5) (F,W)**  
 Concepts, research and theory relative to small group process. Students will participate in small face-to-face task groups, with an emphasis on developing competencies in diagnosis and intervention in small groups.
- 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 (5) (W)**  
 Advanced competencies in counseling and consultation.
- EGC 6890 SUPERVISED FIELD EXPERIENCE IN PUPIL PERSONNEL SERVICES (4 repeatable to 12) (F,W,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,SS)**  
 Special topics in relation to counseling or school psychology.

## DIVISION OF SECONDARY EDUCATION

<p><b>Robert Shostak</b>, <i>Professor and Chairperson</i>  <b>Jan L. Tucker</b>, <i>Professor</i>  <b>C. Edwin McClintock</b>, <i>Associate Professor</i>  <b>Luis A. Martinez</b>, <i>Associate Professor</i>  <b>Shirley H. Musgrave</b>, <i>Associate Professor</i></p>	<p><b>Michael J. Wagner</b>, <i>Associate Professor</i>  <b>Clement Pennington</b>, <i>Assistant Professor</i>  <b>John J. Staczek</b>, <i>Assistant Professor</i>  <b>Robert F. Testa</b>, <i>Assistant Professor</i></p>
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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*

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>Biology Education</li> <li>Chemistry Education</li> <li>English Education</li> <li>History Education</li> </ul> | <ul style="list-style-type: none"> <li>Mathematics Education</li> <li>Modern Language Education</li> <li>Physics Education</li> <li>Social Studies Education</li> </ul> |
|--|---|

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 requirements 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:

	<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>	<b>45</b>
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
 <i>Professional Education:</i>	 <b>45</b>
EDF 3604 Schooling in America K-14	5
EDG 3321 General Teaching Laboratory I	5
EDG 3322 General Teaching Laboratory II	5
 <i>Reading Requirement:</i>	
RED 4335 Special Teaching Laboratory: Reading.	5
 <i>Special Methods and Student Teaching:</i>	
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	5

	(minimum prerequisite or corequisite of 30 hours required in subject matter specialization)	
ARE 4341	Special Teaching Laboratory: Art in Grades 7-12	5
	(minimum prerequisite or corequisite of 30 hours required in subject matter specialization)	
ARE 4940	Student Teaching in Art	15

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90

## MUSIC EDUCATION: GRADES 1-12

Campus Location: Tamiami Campus only

DEGREE: *Bachelor of Science*

### 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

	<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>	<b>41</b>
Applied Music (Five quarters; ½ 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
<i>Professional Education:</i>	<b>45</b>
EDF 3604 Schooling in America K-14	5
EDG 3321 General Teaching Laboratory I	5
EDG 3322 General Teaching Laboratory II	5
<i>Reading Requirement:</i>	
RED 4335 Special Teaching Laboratory: Reading.	5
<i>Special Methods and Student Teaching:</i>	
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
<i>Electives:</i>	<b>4</b>
Sufficient number of hours to make a total of 90 quarter hours at Florida International.	

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90

## 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 (8 semester hours) of general chemistry; 12 quarter hours (8 semester hours) of general physics; mathematics through analytical geometry; 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.

**UPPER DIVISION PROGRAM:**

	<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>	<b>46</b>
Genetics	5
Biochemistry	7
Molecular Biology	7
Developmental Biology	5
Electives in Biology*	10
Organic Chemistry	7
Quantitative Analysis	5
<i>Professional Education:</i>	<b>40</b>
EDF 3604 Schooling in America K-14	5
EDG 3321 General Teaching Laboratory I	5
EDG 3322 General Teaching Laboratory II	5
<i>Reading Requirement:</i>	
RED 4335 Special Teaching Laboratory: Reading.	5
<i>Special Methods and Student Teaching:</i>	
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 Special Teaching Laboratory: Science (minimum prerequisite or corequisite of 30 hours required in subject matter specialization)	5
SCE 4942 Student Teaching	15
<i>Electives:</i>	<b>4</b>
Sufficient number of hours to make a total of 90 quarter hours at Florida International.	
	<b>90</b>

\*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:**

	<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>	<b>36-38</b>
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	
<i>Professional Education:</i>			<b>40</b>
EDF 3604	Schooling in America K-14	5	
EDG 3321	General Teaching Laboratory I	5	
EEG 3322	General Teaching Laboratory II	5	
<i>Reading Requirement:</i>			
RED 4335	Special Teaching Laboratory: Reading.	5	
<i>Special Methods and Student Teaching:</i>			
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 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	
<i>Electives:</i>			<b>12-14</b>
Sufficient number of hours to make a total of 90 quarter hours at Florida International.			

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## 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:

		<i>Quarter Hours</i>	
<i>Subject Matter Specialization:</i>			<b>45</b>
ENG 3500	Introductory Linguistics	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	
<i>Professional Education:</i>			<b>40</b>
EDF 3604	Schooling in America K-14	5	
EDG 3321	General Teaching Laboratory I	5	
EDG 3322	General Teaching Laboratory II	5	
<i>Reading Requirement:</i>			
RED 4335	Special Teaching Laboratory: Reading.	5	
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 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.

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90

## HISTORY EDUCATION: GRADES 7-12

Campus Location: Tamiami Campus only

DEGREE: *Bachelor of Science*

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:

		<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>		<b>40</b>
1.	History 3001 Introduction to History	5
2.	U.S. History at 3000, 4000 or 5000	10
3.	History other than U.S.	20
4.	U.S. Government (POS 3603 or 4044)	5
<i>Professional Education:</i>		<b>15</b>
EDF 3604	Schooling in America K-14	5
EDG 3321	General Teaching Laboratory I	5
EDG 3322	General Teaching Laboratory II	5
<i>Reading Requirement:</i>		<b>5</b>
RED 4335	Special Teaching Laboratory: Reading.	5
<i>Special Methods and Student Teaching:</i>		<b>20</b>
A student must complete 10 quarter hours of foundations courses and all core courses before enrolling in 4000 level methods courses. A student must enroll for SSE 4384C and SSE 4942 in consecutive quarters, in either a fall-winter or a winter-spring quarter sequence.		
SSE 4384C	Special Teaching Laboratory: Social Studies	5
SSE 4942	Student Teaching	15

*Electives:* 10  
Sufficient number of hours to make a total of 90 quarter hours at Florida International.

It is recommended that the student consider a double major which combines a major in history education with a major in social studies, international relations, political science, economics, anthropology, sociology or history. *The student must consult with the history education advisor about these requirements.*

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## MATHEMATICS EDUCATION: GRADES 7-12

Campus Location: Tamiami Campus only.

DEGREE: *Bachelor of Science*

**LOWER DIVISION PREPARATION:**

*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:**

	<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>	<b>35</b>
35 quarter hours beyond calculus, including at least 10 quarter hours in probability and statistics, and 5 quarter hours in computer science.	
<i>Professional Education:</i>	<b>40</b>
EDF 3604      Schooling in America K-14	5
EDG 3321      General Teaching Laboratory I	5
EDG 3322      General Teaching Laboratory II	5
<i>Reading Requirement:</i>	
RED 4335 Special Teaching Laboratory: Reading	5
<i>Special Methods and Student Teaching:</i>	
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)	5
MAE 4942      Student Teaching	15
<i>Electives:</i>	<b>15</b>
Sufficient number of hours to make a total of 90 quarter hours at Florida International.	
	<b>90</b>

**MODERN LANGUAGE EDUCATION: GRADES 7-12**

Campus Location: Tamiami Campus only

DEGREE: *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 division program.

**UPPER DIVISION PROGRAM:**

	<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>	<b>45</b>
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
<i>Professional Education:</i>	<b>40</b>
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 FLE 4375 and SSE 4942 in consecutive 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.

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## 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:

*Subject Matter Specialization:*

	<i>Quarter Hours</i>
Physics 3040, 3041, 3042	15
Junior Physics Laboratory 3040L-3042L	6
Modern Physics	10
Electives in Physics	5
Multivariate Calculus	5
	<b>41</b>

*Professional Education:*

EDF 3604 Schooling in America K-14	5
EDG 3321 General Teaching Laboratory I	5
EDG 3322 General Teaching Laboratory II	5
	<b>40</b>

*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 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

9

269

## SOCIAL STUDIES EDUCATION: GRADES 7-12

Campus Location: Tamiami campus only

DEGREE: *Bachelor of Science*

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:

	<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>	<b>30</b>
History	10
Political Science (POS 3603 or 4044)	5
Geography (GEA 3000)	5
Economics	5
Anthropology or Sociology	5
<i>Professional Education:</i>	<b>15</b>
EDF 3604      Schooling in America K-14	5
EDG 3321      General Teaching Laboratory I	5
EDG 3322      General Teaching Laboratory II	5
<i>Reading Requirement:</i>	<b>5</b>
RED 4335      Special Teaching Laboratory: Reading.	5
<i>Special Methods and Student Teaching:</i>	<b>20</b>
A student must complete ten (10) quarter hours of foundation courses, and all core courses before enrolling in 4000 level special methods courses. A student must enroll for SSE 4384C and SSE 4942 in consecutive quarters, in either a fall-winter or a winter-spring quarter sequence.	
SSE 4384C      Special Teaching Laboratory: Social Studies	5
SSE 4942      Student Teaching	15
<i>Electives:</i>	<b>20</b>
A minimum of 65 quarter hours at the lower and upper divisions <i>combined</i> 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. <i>The student must consult with the social studies advisor about these requirements.</i>	

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### GRADUATE PROGRAMS

Master's programs are offered by the Division in the following specialized areas:

Art Education	Music Education
English Education	Science Education
Mathematics 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 Science*

		<i>Quarter Hours</i>
<i>Education, including Art Education:</i>		<b>20</b>
1. 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	4
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
<i>Teaching Field:</i>		<b>21</b>
Five graduate art courses, including one art history:		
Art History (5)		
Studio Art (16)		
(4 quarter hours credit for each studio course)		
<i>Electives:</i>		<b>8</b>
		<b>49</b>

## ENGLISH EDUCATION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

		<i>Quarter hours</i>
<i>Education:</i>		<b>16</b>
EDF 5481*	Analysis and Application of Educational Research	4
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		
<i>Teaching Field:</i> English		<b>20</b>
<i>Electives:</i>		<b>9</b>
		<b>45</b>

## MATHEMATICS EDUCATION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

		<i>Quarter Hours</i>
<i>Education:</i>		<b>16</b>
EDF 5481	Analysis and Application of Educational Research	4
MAE 6336	Teaching Mathematics in the Secondary School	4
MAE 6899	Seminar in Mathematics Education	4
ESE 6215	Secondary School Curriculum	4
<i>Teaching Field: Mathematics</i>		<b>20</b>
<i>Electives: In Education and/or Mathematics</i>		<b>9</b>
		<b>45</b>

## MUSIC EDUCATION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

		<i>Quarter Hours</i>
<i>Education:</i>		<b>16</b>
ESE 6215	Secondary School Curriculum	4
<i>or</i>		
EDE 6205	Curriculum Design for Childhood Education	
EDF 5481	Analysis and Application of Educational Research	4
MUE 6349	Methodology of Music Teaching	4
MUE 6938	Seminar in Music Education	4
<i>Teaching Field: Courses in music including:</i>		<b>20</b>
MUH 5375	Twentieth Century Music	4
MUT 5325	Arranging	4
MUG 5105	Advanced Conducting	2
<i>Electives:</i>		<b>9</b>
		<b>45</b>

## SCIENCE EDUCATION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

		<i>Quarter Hours</i>
<i>Education:</i>		<b>16</b>
EDF 5481	Analysis and Application of Educational Research	4
SCE 6635	Teaching Science in the Secondary School	4
ESE 6215	Secondary School Curriculum	4
SCE 6933	Seminar in Science Education	4
<i>Teaching Field:</i>		<b>20</b>
Biology or Chemistry or Physics		
<i>or</i>		
One Course in Each of the Following Areas: Biology, Chemistry, Physics (For Junior High Science Teachers)		
<i>Electives:</i>		<b>9</b>
		<b>45</b>

## SOCIAL STUDIES EDUCATION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

		<i>Quarter Hours</i>
<i>Education:</i>		<b>16</b>
SSE 6633	Teaching Social Studies in the Secondary School	4

ESE 6215	Secondary School Curriculum	4
EDF 5481	Analysis and Application of Educational Research	4
SSE 6939	Seminar in Social Studies Education	4
<i>Teaching Field: Graduate level social science and history</i>		<b>20</b>
<i>Electives: In Education and/or teaching field</i>		<b>9</b>
		<hr/>
		<b>45</b>

## 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. Minimum 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** (1-5)  
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** (3-5)  
Production and application of materials and techniques in art education, in a laboratory or field setting.

### MUSIC EDUCATION

- MUE 3142 SPECIAL TEACHING LABORATORY I** (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,SS)  
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.

**MUE 6938 SEMINAR IN MUSIC EDUCATION** (4) (F,S)  
Seminar in music programs in the United States and other countries, and current issues and problems facing the music educator.

## 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** (4) (W,SS)  
Examination of programs, trends, and developments in curriculum and instruction in the secondary school. Consideration and evaluation of innovations.

**ESE 6425 RESEARCH IN SECONDARY EDUCATION** (1-4) (ARR)  
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** (1-4) (ARR)  
Analysis of selected problems in secondary education.

**ESE 6947 SUPERVISED FIELD EXPERIENCE** (5-15) (ARR)  
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 SCHOOL** (4) (F)  
An 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 differ 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** (4) (F)  
Analysis of methods, programs and materials for teaching mathematics in the junior and senior high school, and development of teaching skills.

**MAE 6899 SEMINAR IN MATHEMATICS EDUCATION** (4) (S)  
Designed to provide the advanced student with deeper understanding of the current state of mathematics education. 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 of 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.

- SCE 4330 SPECIAL TEACHING LABORATORY: SCIENCE** (5) (W)  
Development of instructional skills, techniques and strategies for teaching biological and physical sciences in the junior and senior high schools. Prerequisites: EDF 3604, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 25-30 hours in subject matter specialization.
- SCE 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.
- SCE 6635 TEACHING SCIENCE IN THE SECONDARY SCHOOL** (4) (F)  
Analysis of methods, programs, and materials for teaching science in the junior and senior high school, and development of teaching skills.
- SCE 6933 SEMINAR IN SCIENCE EDUCATION** (4) (S)  
Analysis of research trends and selected topics in science education. Mainly for graduate students in secondary science education. Individual needs and interests will determine the fine structure of the course content.
- SSE 4384C SPECIAL TEACHING LABORATORY: SOCIAL STUDIES** (5) (F,W)  
Development of instructional skills, techniques, and strategies for teaching history and social science in the junior and senior high school. Prerequisites: EDF 3604, EDG 3321, and EDG 3322. Field Experience required.
- SSE 4942 STUDENT TEACHING** (15) (W,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.
- SSE 6633 TEACHING SOCIAL STUDIES IN THE SECONDARY SCHOOL** (4) (F)  
Analysis of methods, programs, and materials for teaching social studies in the junior and senior high school, and development of teaching skills.
- SSE 6939 SEMINAR IN SOCIAL STUDIES EDUCATION** (4) (S)  
Designed for advanced students, the readings and discussions will focus on policy issues and recent research in social studies education. Though primarily for experienced social studies teachers and supervisors, the course is open to administrators and others, with the consent of the instructor.

## 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*  
**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.

UPPER DIVISION PROGRAM:

		<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>		<b>50</b>
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
<i>Professional Education:</i>		<b>40</b>
EDF 3604	Schooling in America	5
EDG 3321	Teaching Lab I	5
EDG 3322	General Teaching Lab II	5
RED 4335	Special Teaching Lab: Reading	5
HES 4303	Special Teaching Lab: Health Education	5
HES 4940	Student Teaching	15
		<hr style="width: 100%; border: 0.5px solid black;"/>
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**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:

		<i>Quarter Hours</i>
<i>Subject Matter Specialization:</i>		<b>40</b>
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.

<i>Electives: Elementary Physical Education Emphasis</i>		<b>10</b>
PET 4430	Physical Education for Primary Grades	5
DAE 4300	Physical Education for Intermediate Grades	5

*or*

<i>Electives: Secondary Physical Education Emphasis</i>		<b>10</b>
PEO 4014	Coaching Sports*	5
PET 4622C	Athletic Injuries*	5
SOP 3932	Psychology of Drug Abuse	5
HES 4001	Community Health	5
HES 4160	Critical Issues in Health	5

<i>Professional Education:</i>		<b>40</b>
EDF 3604	Schooling in America	5

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

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\*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:

<i>Subject Matter Specialization:</i>	<i>Quarter Hours</i>
	<b>55-70</b>
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 will take 20-35 quarter hours of electives after consultation with their advisor.

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## 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 Science*

		<i>Quarter Hours</i>
<i>Professional Education:</i>		<b>16</b>
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
<i>Area of Specialization:</i>		<b>21</b>
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	4
<i>Electives:</i>		<b>8</b>
		<b>45</b>

## PARKS AND RECREATION ADMINISTRATION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

		<i>Quarter Hours</i>
<i>Professional Education:</i>		<b>13</b>
LEI 5510C	Program Administration in Parks and Recreation	4
LEI 5440	Program Development in Parks, and Recreation	4
PAD 6106	Organization Theory and Administrative Behavior	5
<i>Area of Specialization:</i>		<b>18-32</b>
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
LEI 6922	Supervised Field Experiences in Parks and Recreation	5-15
<i>Electives:</i>		<b>14</b>
		<b>45</b>

## PHYSICAL EDUCATION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

		<i>Quarter Hours</i>
<i>Professional Education:</i>		<b>8</b>
EDF 5481	Analysis and Application of Educational Research	4
RED 6333	Reading in the Secondary School	4
<i>Area of Specialization:</i>		<b>32</b>
PET 6535	Survey of Research in Physical Education	4
PET 4510	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 Safety; 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** (5) (F)  
Students will develop competencies in community health by identifying, observing, and discussing aspects of health 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 educational environment at a university, agency or school approved by the faculty. 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 3640C 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** (5)  
Students will demonstrate knowledge and application of the physiological and psychological factors affecting motor skill acquisition and performance.
- PET 4430 PHYSICAL EDUCATION FOR PRIMARY GRADES** (5)  
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.

**PET 4433 PHYSICAL EDUCATION FOR INTERMEDIATE GRADES**

Designed to 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 4450L 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 (5)**

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 characteristic of a competent physical education teacher.

**PET 4510 EVALUATION IN PHYSICAL EDUCATION (5) (W)**

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 (4) (S)**

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 faculty 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 faculty 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 of 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 facilities. Students will be expected to display competence in proper maintenance of areas normally found 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 facilities.

**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 staff, conducting group dynamics, communicating to the public, and administering democratically.

**LEI 3437 PROGRAM DEVELOPMENT IN PARKS AND RECREATION MANAGEMENT (5) (S)**

Students will attain 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.

- LEI 4590 SEMINAR IN PARKS AND RECREATION MANAGEMENT** (5) (S)  
A discussion of current problems, issues and trends in parks and recreation management, which will help the student develop those competencies necessary to deal with everyday aspects of particular programs.
- LEI 5510 PROGRAM ADMINISTRATION IN PARKS AND RECREATION** (4) (F)  
A detailed analysis of administrative procedures and responsibilities in connection with parks and recreation facilities and personnel.
- LEI 5440 PROGRAM DEVELOPMENT IN PARKS AND RECREATION** (4) (W)  
The development of specific programs in parks and recreation with emphasis on special programs for young children, retardates, handicapped persons, and the elderly.
- LEI 5595 SEMINAR IN PARKS AND RECREATION ADMINISTRATION** (4) (S)  
A discussion of current problems, issues, and trends in administration of parks and recreation programs.
- LEI 5907 INDIVIDUAL STUDY IN PARKS AND RECREATION ADMINISTRATION** (1-5) (F,W,S)  
An opportunity for individuals interested in various aspects of park and recreation administration to work on their own under the close supervision of an advisor. Permission of the instructor and Department Chairperson required.
- LEI 6922 SUPERVISED FIELD EXPERIENCES IN PARKS AND RECREATION ADMINISTRATION** (5-15) (F,W,S)  
A practical experience for individuals interested in administrative responsibilities. Permission of the instructor and Department Chairperson required.

## DIVISION OF VOCATIONAL EDUCATION

**Dominic Mohamed**, *Associate Professor and Chairperson*  
**Myrna P. Crabtree**, *Professor*  
**Dean Hauenstein**, *Professor*  
**Curtis Bradley**, *Associate Professor*  
**George W. Vanover**, *Associate Professor*

**Rosemere Baum**, *Assistant Professor*  
**Robert O. Pryor**, *Assistant Professor*  
**Janice R. Sandiford**, *Assistant Professor*  
**Dennis G. Tesolowski**, *Assistant Professor*  
**Chester Wichowski**, *Assistant Professor*

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:

	<i>Quarter Hours</i>
<i>Professional Education:</i>	<b>50</b>
EDF 3827 Schooling in America	5
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 Special Teaching Laboratory: Home Economics Education	5
HEE 4941 Student Teaching: Home Economics Education	15
<i>Technical Preparation:</i> Total of 65 quarter hours needed from lower and upper division:	<b>(65)</b>
Housing and Home Furnishing*	10
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	
<i>Advised Electives:</i>	<b>5</b>
Sub-specialty area of concentration:	
Competencies may be developed in one of the following six fields:	
1. One area of consumer and homemaking education	
2. One area of wage-earning home economics	
3. Education for the handicapped	
4. Education for the culturally disadvantaged	
5. Education for the adult learner	
6. Educational settings in business, industry or public service agencies	

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## 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 is encouraged to take basic courses in each area in the lower division.

UPPER DIVISION PROGRAM:

	<i>Quarter Hours</i>
<i>Professional Education</i>	<b>45</b>
EDF 3827 Schooling in America	5
EDG 3321 General Teaching Laboratory I	5
EDG 3322 General Teaching Laboratory II	5
EVT 3165C Course Planning in Vocational Education	5
RED 4325 Special Teaching Laboratory: Reading	5
EIA 4360 Instruction in Industrial Arts	5

EIA 4941 Student Teaching: Industrial Arts Education 15

*Technical Preparation:*

45

*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

**MANUFACTURING**

ETI 3417C	Manufacturing Technology	5
ETI 4421C	Materials Processing	5
EDT 4525C	Drafting I	5
or		
ETD 4526C	Drafting II	5
ETM 4823C	Materials of Industry	5
BCN 4033	Industrial Research and Development	5

**GRAPHIC COMMUNICATIONS**

ARV 3210	Reprographics	5
ARV 4250	Planographics	5
ARV 4150	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.

90

**POST-SECONDARY TECHNICAL 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 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*  
**73-83**

*Professional Education*

EDF 3827	Schooling in America	5
EVT 5078	Technical Education in American Society	4
EDG 3321	General Teaching Laboratory I	5
ADE 5385	Adult Teaching and Learning	4
EDG 3322	General Teaching Laboratory II	5
EVT 3165C	Course Planning in Vocational Education	5
RED 4325	Special Teaching Laboratory: Reading	5
EVT 4949*	Supervised Occupational Experience	5-15

\* For the student who lacks acceptable occupational experience in the area to be taught.

or		
EVT 4990	Credit by Examination	5-45
EVT 5460	Educational Media	5
EVT 4941	Special Teaching Laboratory: Technical Education	5
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

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**90**

## 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:

	<i>Quarter Hours</i>
<i>Professional Education:</i>	<b>65-75</b>
EDF 3827 Schooling in America	5
EVT 3065 Foundations of Vocational Education	5
EDG 3321 General Teaching Laboratory I	5
EDG 3322 General Teaching Laboratory II	5
RED 4325 Special Teaching Lab: Reading	5
EVT 3165C Course Planning in Vocational Education	5
EVT 3815C Vocational Education Laboratory Management and Safety	5
EVT 4949* Supervised Occupational Experience	5-15

\*For students who lack acceptable occupational experience in the area to be taught.

or		
EVT 4990	Credit by Examination	5-45
EVT 5460	Educational Media	5
EVT 4941	Special Teaching Laboratory: Voc.-Ind. Ed	5
EVT 4940	Student Teaching: Voc.-Ind. Ed	15

*Advised Electives:* 10

SOC 4265	Man, Society and Technology	
or		
SOC 5261	Industrial Sociology	5
or		

INP 3002	Industrial Psychology	
EGC 5305	Educational and Vocational Guidance	5

*Free Electives:* 10

Enough electives should be taken to equal a minimum of 90 quarter hours

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**90**

## 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 Professional 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

*Required courses:* Foundations of Education (10 quarter hours)

*Quarter Hours*

*Professional Vocational Education:*

**10**

		Certificate Area	
EVT 3065	Foundations of Vocational Education	A	5
EVT 3165C	Course Planning in Vocational Education (suggested second course in sequence)	B	5
EVT 3815C	Vocational Education Laboratory Management and Safety	C	5
EVT 4365C	Instructional Processes in Vocational and Technical Education (suggested first course in sequence)	B	4
EVT 5766	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*

	<i>Quarter Hours</i>
<i>Required Core:</i>	<b>20-24</b>
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
 <i>Area of Professional Emphasis:</i> 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.	
	<b>15</b>
 <i>Electives:</i> The candidate will be encouraged to make selections on the basis of individual needs and career goals.	
	<b>6-10</b>
	<b>45</b>

## VOCATIONAL INDUSTRIAL EDUCATION

Campus Location; Tamiami Campus only

DEGREE: *Master of Science*

	<i>Quarter Hours</i>
<i>Required Core:</i>	<b>20-24</b>
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
 <i>Area of Professional Emphasis:</i> 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.	
	<b>12-17</b>
 <i>Technical Electives:</i> The candidate will be encouraged to select courses that will increase his or her subject area technical competence.	
	<b>4-9</b>
	<b>45</b>

## TECHNICAL EDUCATION

Campus Location: Tamiami Campus only

DEGREE: *Master of Science*

		<i>Quarter Hours</i>
<i>Required Core:</i>		<b>20-24</b>
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
<i>Area of Professional Emphasis:</i>		<b>8</b>
EVT 5078	Technical Education in American Society	4
ADE 5385	Adult Teaching and Learning	4
<i>Technical Electives:</i>		<b>8-13</b>
The candidate will be encouraged to select courses that will increase his or her subject area technical competence.		
<i>Advised Electives for Non-education Graduates:</i>		<b>8-10</b>
EDF 5710	National Educational Systems: A Comparative Analysis (4)	4-5
or		
SOC 5284	Sociology of Education (5)	
and		
EXP 5406	Theories of Learning (5)	
or		
EDF 6215	Application of Learning Theory to Instruction (4)	4-5
		<hr style="width: 100px; margin-left: auto; margin-right: 0;"/> 45

## INDUSTRIAL ARTS EDUCATION

Campus Location: Tamiami Campus only  
 DEGREE: *Master of Science*

		<i>Quarter Hours</i>
<i>Required Core:</i>		<b>20-24</b>
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
<i>Area of Professional Emphasis:</i>		<b>12-16</b>
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,		
<i>Technical Electives:</i> The student is encouraged to select courses that will increase his or her subject area technical competence.		<b>5-10</b>
		<hr style="width: 100px; margin-left: auto; margin-right: 0;"/> 45

## 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*

		<i>Quarter Hours</i>
<i>Required Core:</i>		<b>36-40</b>
EVT 5168	Curriculum Development in Vocational Education	4
EVT 5265	Supervision and Coordination of Vocational Education Programs	4
EVT 5461	Community Relations and Resources for Vocational Education	4
EVT 6264	Administration of Local Vocational Education Programs	4
EVT 6930	Seminar in Vocational Education	4
EDA 6061	The Organization and Operation of the Public School System	4
EDA 6530	The Administration of the Secondary School	4
EDS 6050	Supervision in Education	4
EDG 6250	Curriculum Development	4
RED 6333	Teaching Reading in the Secondary School	4
<i>Area of Professional Emphasis:</i>		<b>4</b>
EVT 6946	Supervised Field Experience	4
<i>Electives:</i>		<b>5</b>
<p>The candidate may select a course (or courses) that will increase his or her administrative and supervisory competencies.</p>		
		<b>45</b>

## 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 4882L 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 LABORATORY MANAGEMENT AND SAFETY (5) (W)**

Competency: Knowledge and skill in analyzing, planning, organizing, and controlling laboratory environments and student's safe learning activities.

#### **EVT 4365C INSTRUCTIONAL STRATEGIES AND EVALUATION IN VOCATIONAL AND TECHNICAL EDUCATION (5) (F)**

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 (5) (F)**

Competency: A knowledge of current trends and issues in reference to developing and integrating career education into current elementary and secondary educational programs.

#### **EVT 4905 INDIVIDUAL STUDY (1-5) (maximum 10 hrs.) (ARR)**

Competency: The ability to identify, research, and report on a special problem of interest to the student. Subject to approval of program advisor.

- EVT 4940 STUDENT TEACHING: VOCATIONAL INDUSTRIAL EDUCATION AND TECHNICAL EDUCATION** (15) (W,S)  
Competency: Utilization of instructional knowledges, attitudes, and skills in a variety of instructional situations in the vocational educational setting. 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 teaching 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 certified by recognized professional examinations such as the National Occupational Competency Test. Credits cannot 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 of specialization.
- EVT 5265 SUPERVISION AND COORDINATION OF VOCATIONAL EDUCATION PROGRAMS** (4) (F)  
Competency: 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 vocational-technical education at the international, national, state, and local levels.
- EVT 5766 EVALUATION IN VOCATIONAL AND TECHNICAL EDUCATION** (4) (S)  
Competency: Knowledge and skills in the use of tests and measurements, to evaluate teaching and learning effectiveness 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** (1-10)  
Competency: Selected competencies related to instructional and technical areas.
- EVT 6264 ADMINISTRATION OF VOCATIONAL EDUCATION PROGRAMS** (4) (S)  
Competency: Knowledge of the principles, practices, functions, and roles of administration, in the operation of vocational education programs.
- EVT 6760 RESEARCH IN VOCATIONAL EDUCATION** (4) (S)  
Competency: Knowledge 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 professional 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 refinement 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** (5)  
Competency: Knowledge of the basic philosophy, goals, programs, principles, practices and learning environments in industrial arts, and the relationship of industrial arts to other school disciplines.

- EIA 4360 INSTRUCTION IN INDUSTRIAL ARTS** (5) (F,W)  
 Competency: Application of educational principles, practices, and techniques to the teaching of industrial arts. Prerequisite: EDG 3321.
- EIA 4941C STUDENT TEACHING IN INDUSTRIAL ARTS** (15) (W,S)  
 Competency: The utilization of instructional knowledges, attitudes, and skills in industrial arts education instructional situations. Prerequisites: EIA 4360, EVT 3165C.
- EIA 5811C EQUIPMENT AND FACILITIES PLANNING** (4) (S)  
 Competency: Utilization of research, design, and engineering knowledge and skills to plan laboratory facilities and equipment.
- EIA 5905 INDIVIDUAL STUDY** (1-5) (APR)  
 Competency: The ability to identify, research, and report on an industrial arts problem of interest to the student. Subject to approval of program adviser.
- EIA 6931 ANALYSIS OF INDUSTRIAL ARTS EDUCATION** (4) (W)  
 Competency: Knowledge of industrial arts at the national, state, and local levels.

### VOCATIONAL HOME ECONOMICS EDUCATION

- HEE 3302 HOME ECONOMICS EDUCATIONAL PLANNING** (5)  
 Competency: Development and adaptation of curriculum and strategies for the presentation of vocational home economics content in a variety of educational settings.
- HEE 4104 INSTRUCTION IN VOCATIONAL HOME ECONOMICS** (5)  
 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 institutions. 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, attitudes, and skills in vocational home economics education instructional situations. Prerequisites: HEE 3301, HEE 4014, HEE 4944.
- HEE 5335 TRENDS IN VOCATIONAL HOME ECONOMICS EDUCATION** (4) (F)  
 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** (5)
- \*HEE 5361 TEACHING CONSUMER EDUCATION AND FAMILY ECONOMICS** (5)
- \*HEE 5362 TEACHING CLOTHING AND TEXTILES** (5)
- \*HEE 5363 TEACHING FAMILY LIFE EDUCATION** (5)
- \*HEE 5364 TEACHING HOUSING AND HOME FURNISHINGS** (5)
- \*HEE 5365 TEACHING FOOD AND NUTRITION** (5)
- 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** (1-5)  
 Competency: Skill in developing, organizing, teaching, evaluating, and administering programs related to specific aspects of the home economics education. Subject to approval of program adviser.
- HEE 6126 TEACHING HOME ECONOMICS IN THE SECONDARY SCHOOL** (4)  
 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** (4)  
 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** (4)  
 Competency: Application of selected instructional, curricular and/or administrative principles and practices to the solution of problems of special interest to vocational home economics educators. Subject to approval of program adviser.
- HEE 6551 SUPERVISION OF STUDENT TEACHERS IN HOME ECONOMICS** (4)  
 Competency: Skill in teaching, observing, and evaluating student teachers in vocational home economics.

\*Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational methods.

# 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)

**\*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

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 Physical Therapy Association and the American Medical Association. (Tamiami Campus.)

**SOCIAL WORK** — Prepares practitioners to help solve individual, family, group and community problems, 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 social 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 admissible 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 plan 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

**Robert Clark**, Associate Professor

**Bruce Hamersley**, Associate Professor

**Jose Marques**, Associate Professor

**Regina Shearn Perry**, Associate Professor

**Robert Snow**, Associate Professor

**William Wilbanks**, Associate Professor

**Harcourt Clark**, Assistant Professor

**Charles Johnson**, Assistant Professor

**Luis Salas**, Assistant Professor

**Ronald Schneider**, Assistant Professor

**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

- CCJ 3100
- CCJ 3290
- CCJ 4300
- CCJ 4700

*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	Nature and Causes of Crime	5
CCJ 3700	Methods of Criminal Justice Research	5

<i>Area of Interest:</i> See explanation above	<b>20</b>
<i>Specific Electives:</i> See explanation above	<b>15</b>
<i>General Electives:</i> See explanation above	<b>25</b>

### 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 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	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** (5)  
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** (5)  
A conceptual study of the American police system.
- CCJ 3290 JUDICIAL POLICY MAKING** (5)  
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** (5)  
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** (5)  
Social, cultural, behavioral, political and economic causative 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** (5)  
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** (5)  
An in-depth study of the 4th through 8th Amendments of the Constitution, and their impact on the criminal justice process.

- CCJ 3291 JUDICIAL ADMINISTRATION — CRIMINAL (5)**  
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 (5)**  
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 (5)**  
A course designed to explore the nature and function of counseling within the correctional setting.
- CCJ 3341 CORRECTIONAL TREATMENT (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 PLANNING (5)**  
Planning methods applicable to criminal justice agencies are examined. Emphasis is on planning as a decision making process for criminal justice agencies. Theories, techniques, and applications studied.
- CCJ 3530 DELINQUENCY PREVENTION AND CONTROL (5)**  
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 (2)**  
An extensive examination of selected contemporary issues in criminal justice. May be repeated.
- CCJ 3949 COOPERATIVE EDUCATION IN CRIMINAL JUSTICE (5)**  
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 (5)**  
A study of the concept of police-community relations, emphasizing the police role in community tension and conflict.
- CCJ 4250 CRIMINAL JUSTICE AND THE CONSTITUTION (5)**  
A study of constitutional issues as they relate to the administration of criminal justice.
- CCJ 4280 LAW AND CRIMINAL JUSTICE (5)**  
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 (5)**  
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 (5)**  
An examination of the treatment of convicted law violators by the correctional field services, before and after prison.
- CCJ 4400 METHODS OF INSTITUTIONAL CHANGE (5)**  
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 (5)**  
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 (5)**  
An experience based course that will prepare selected students to present human relations training programs in criminal justice agencies.
- CCJ 4630 COMPARATIVE CRIMINAL JUSTICE SYSTEMS (5)**  
A critical comparative study of various American criminal justice subsystems with those of selected industrialized foreign countries, including discussion of administration, organization, objectives, principal functions, and levels of control.
- CCJ 4661 TERRORISM AND VIOLENCE IN CRIMINAL JUSTICE (5)**  
An analysis of terrorism and violence in criminal justice. Law and other control mechanisms will be examined.

- CCJ 4662 CRIMINAL JUSTICE AND THE MINORITY COMMUNITY** (5)  
A general survey of the institutions of justice in the United States, and their contacts with minority people. The local point of this course will be the role of racial/ethnic minorities in the criminal justice system.
- CCJ 4663 WOMEN, CRIME AND THE CRIMINAL JUSTICE SYSTEM** (5)  
Women as deviants, criminals, victims and professionals in the criminal justice system.
- CCJ 4900 DIRECTED READINGS IN CRIMINAL JUSTICE** (Variable)  
Extensive reading and analysis of selected literature under faculty supervision. Permission of instructor and Program Chairperson required.
- CCJ 4910 INDEPENDENT RESEARCH** (Variable)  
A course designed to provide qualified students with the opportunity to perform meaningful research in areas of criminal justice under the direction of a faculty member. Permission of the instructor required.
- CCJ 4940 FIELD WORK AND SPECIAL PROJECTS** (1-15)  
A course designed to broaden the experiential base; application of theoretical content to criminal justice. Advisor's approval required.
- CCJ 4949 COOPERATIVE EDUCATION IN CRIMINAL JUSTICE** (5)  
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: 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:**

Core Courses:	<i>Quarter Hours</i>
CCJ 6055 Seminar in Criminal Justice	5
CCJ 6476 Criminal Justice Planning	5
CCJ 6477 Information Systems for Criminal Justice	5
	<b>25</b>

CCJ 6706	Applied Statistical Techniques for Criminal Justice	5
CCJ 6709	Advanced Research Methods	5
CCJ 6971	Thesis (for students in thesis track)	10
<i>Administrative Concentration:</i>		<b>15 or 20</b>
CCJ 6456	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	
<i>General Electives:</i>		<b>10 or 20</b>
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	

**Total 60**

*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**

- CCJ 6055 SEMINAR IN THE CRIMINAL JUSTICE SYSTEMS (5)**  
Advanced study of problems, trends and critical issues involved in the administration of criminal law as a means of social control. Emphasis is on systematic relationships and systems theory building.
- CCJ 6476 COMPREHENSIVE CRIMINAL JUSTICE PLANNING (5)**  
The planning environment of criminal justice is examined. Emphasis is on the role and methods of managing and organizing the planning process applicable to systematizing criminal justice. Case studies are developed.
- CCJ 6477 INFORMATION SYSTEMS FOR CRIMINAL JUSTICE (5)**  
An advanced seminar in the survey and application of electronic data of use to the criminal justice sector. Prerequisite: COC 3300 or permission of instructor.
- CCJ 6706 APPLIED STATISTICAL TECHNIQUES FOR CRIMINAL JUSTICE (5)**  
Statistical tools applicable to criminal justice research are examined. Emphasis is on developing an un-

understanding of the various techniques and their applications. The use of computerized statistical packages will be presented. Prerequisites: STA 3122 and STA 3123 or permission of instructor.

**CCJ 6709 ADVANCED RESEARCH METHODS** (5)

The focus of this course is on the presentation and discussion of research methodology of primary interest to criminal justice students. Emphasis is placed on preparation for thesis research, the requirements for proposal preparation and final thesis report.

**CCJ 6971 THESIS** (10)

The completion and defense of the thesis.

## ELECTIVES

**CCJ 6050 SEMINAR IN CRIMINOLOGY** (5)

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** (5)

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** (5)

A study of philosophical and utilitarian approaches to the definition of justice, and the varied translations of the concepts of justice into concrete action.

**CCJ 6365 SEMINAR IN CORRECTIONS** (5)

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** (5)

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 justice system.

**CCJ 6457 ORGANIZATIONAL DEVELOPMENT IN CRIMINAL JUSTICE AGENCIES** (5)

A course designed to familiarize students with the organizational 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** (5)

A study of the various employment practices within criminal justice agencies and the impact of these practices on the development of the criminal justice system.

**CCJ 6468 INTERGROUP RELATIONS IN CRIMINAL JUSTICE** (5)

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** (5)

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** (5)

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** (5)

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** (5)

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** (5)

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** (5)

An in-depth study of the criminal-victim relationship.

**CCJ 6716 PRODUCTIVITY AND PROGRAM EVALUATION** (5)

A systematic review of the problems involved in productivity, improvement in criminal justice agencies, and program evaluation.

**CCJ 6945 FIELD EXPERIENCE IN CRIMINAL JUSTICE** (5)

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*

Katharine Curry, *Associate Professor  
and Director, CUPID*

Michele Keane, *Assistant Professor*

Rasheed Khan, *Assistant Professor*

Susan Myers, *Assistant Professor*

Susan Himborg, *Assistant Professor  
and System Leader, CDES*

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* — — (Organic Chemistry must be completed before DIE 3005 is taken)	3
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	Dietetic Instruction and Counseling	4
DIE 4436	Dietetic Instruction and Counseling Lab	1
DIE 4365	Dietetic Management of Nutrition Programs (Advanced)	2
DIE 4377	(Applied) Dietetic 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. (19)

*Recommended Electives:* Selected courses in the following areas: education, statistics, social work, health science, adult education, business, anthropology, sociology. (3-5)

\*all chemistries must have laboratories.

## GRADUATE PROGRAM

Admission to the master's program is determined by an evaluation of the applicant's bachelor'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.

### 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

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:

		<i>Quarter Hours</i>
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	Field Research Methods in Dietetics	3
DIE 6908	Supervised Field Study in Dietetics	
or		
DIE 6971	Thesis in Dietetics	5
HUN 5245	Nutrition and Biochemistry	
or		

HUN 6247	Nutritional Pathophysiology	4
HUN 6408	Nutrition During the Life Cycle	
or		
FOS 6044	Advanced Food Science	
or		
HUN 6521	Advanced Community Nutrition	4
Other DIN Program Courses		8-10
Courses outside the DIN Program		12-14

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45

### DIETETIC MANAGEMENT

Campus Location: Tamiami and North Miami Campuses.

DEGREE: *Master of Science in Dietetics*

		<i>Quarter Hours</i>
DIE 6937	Graduate Seminar in Dietetics	1
DIE 6568	Research Methods in Dietetics	3
HUN 6811	Laboratory Research Methods in Dietetics	
or		
DIE 6578	Field Research Methods in Dietetics	3
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		12-14

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### COURSE DESCRIPTIONS

#### DEFINITION OF PREFIXES

DIE—Dietetics; FOS—Food Science; FSS—Food Service Systems; HUN—Human Nutrition.

#### DIE 3005 ORIENTATION TO CLINICAL DIETETICS (3)

Survey of the role and responsibilities of the dietitian. Legal and ethical considerations necessary for the student dietitian 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 (3)

Survey of various types of institutional food service systems. Covers management concepts involved in planning, implementing, and evaluating food service systems. Prerequisite: DIE 3005, or permission of instructor.

#### DIE 3175 MANAGEMENT OF DIETARY SYSTEMS PRACTICUM (6)

Provides for developing the skills listed for DIE 3125. Clinical assignments will be made in several food service institutions in this area. Corequisite: DIE 3125. Clinical component: open only to students in the coordinated clinical program.

#### DIE 3245 DIET THERAPY (3)

Techniques of adjusting nutrients and food intake to accommodate medical treatments and previous nutrition. Menu writing and analysis, translation of dietary prescriptions, techniques of dietary instruction, dietary histories. Prerequisites: HUN 3122 or equivalent, physiology and biochemistry.

#### DIE 3275 APPLIED DIET THERAPY (6)

Observation and participation in dietary treatment activities. In clinical institutions, application of menu writing, translation of dietary prescriptions, 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 of a problem in dietetic administration, chosen to coincide with the student's interests and career goals. The student develops objectives stated in behavioral terms; and demonstrates skills in information gathering, analysis and technical writing. Clinical component: open only to students in the coordinated clinical program.

#### DIE 4296 SPECIAL PROBLEMS IN GENERAL DIETETICS (1-3)

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 demonstrates 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** (7)  
Study of community agencies available for nutrition guidance for differing age groups. Observation and participation in activities of community agencies. Prerequisites: physiology, HUN 3122. Clinical component: open only to students in the coordinated clinical program.
- DIE 4365 DIETETIC MANAGEMENT OF NUTRITION PROGRAMS** (2)  
Advanced concepts of the managerial functions of a dietician working as an institutional consultant, a member of a community nutrition program, a private therapeutic consultant and/or full time institutional food service administrator will be covered. A part of the clinical sequence. Advanced standing required. Six hours practicum will be taken concomitantly. Clinical component: open only to students in the coordinated clinical program.
- DIE 4377 DIETETIC MANAGEMENT OF NUTRITION PROGRAMS PRACTICUM** (6)  
Assignments are made in various community agencies and institutions for development of beginning professional 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** (4)  
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** (1)  
Provides small group video tape recording practice in dietetic instruction and counseling. Prerequisite: Advanced standing in dietetics. Corequisite: DIE 4435.
- DIE 4506 SEMINAR IN DIETETICS AND NUTRITION** (3-9)  
Study 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 meet 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** (4)  
Critical study — historical, current, and experimental. Prerequisite: DIE 3245, or equivalent.
- DIE 5926 WORKSHOP IN DIETETICS AND NUTRITION** (1-5)  
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** (5)  
Emphasis on management and organizational theory. Innovative projects for the development of management competencies are developed to meet needs of individual students. Prerequisite: Permission of instructor.
- DIE 6568 RESEARCH METHODS IN DIETETICS** (3)  
Consideration of scientific method and theoretical orientation as applied to research in dietetics. Special consideration given to various techniques of investigation, data collection, data organization, and interpretation. Prerequisite: Permission of instructor.
- DIE 6578 FIELD RESEARCH METHODS IN DIETETICS** (3)  
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** (2-5)  
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** (5)  
Pre-planned practical experience at the professional level in an area of dietetics. Critical written evaluation by the student, developed with frequent consultation and supervision of instructor. Prerequisites: Professional competency in dietetics and permission of the Chairperson of the Department.
- DIE 6937 GRADUATE SEMINAR IN DIETETICS** (1)  
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** (5)  
By arrangement with student's thesis committee.
- FOS 3004 FOOD AND THE CONSUMER** (4)  
Study of purchasing, storage and preparation of food. Consideration of current life style which influences food choices. Designed to develop the student's skills in purchasing and preparing foods, to meet personal, social, and physical needs. Demonstration laboratory included. Recommended for non-majors.
- FOS 3021 FOOD AND NUTRITION SCIENCE** (4)  
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 for non-majors.
- FOS 4041 FOOD SCIENCE** (4)  
Physical and chemical changes in food, occurring as a result of various methods of processing, prepara-

tion, and storage. Legal control, economic considerations, nutrient contributions of mass-produced foods, compared with foods prepared on-site. Prerequisites: organic chemistry, HUN 3122, FSS 3215, or equivalents.

- FOS 6044 ADVANCED FOOD SCIENCE (4)**  
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 (4)**  
Development of 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 co-requisite: HUN 3122 (or permission of instructor).
- FSS 3316 FOOD SCIENCE FOR INSTITUTIONS (4)**  
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 (4)**  
Nutrients 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 (5)**  
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 (4)**  
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 (4)**  
Nutrient intakes recommended for children in different age groups, in respect to social, economic and physical environments. Designed to equip students with limited nutrition information, and develop skill in incorporating nutrition information in formal and informal learning situations. Recommended for non-majors.
- HUN 5123 ETHNIC INFLUENCES OF NUTRITURE ANDFOOD HABITS (4)**  
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 food preparation and nutrition. Recommended for non-majors.
- HUN 5245 NUTRITION AND BIOCHEMISTRY (4)**  
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 II).
- HUN 5611 NUTRITION EDUCATION IN THE COMMUNITY (4)**  
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 (4)**  
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 standing, competency in food and nutrition knowledge. Taught in fall quarter alternately with HUN 5611. Recommended for non-majors.
- HUN 5890 RECENT RESEARCH IN NUTRITION (4)**  
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 (4)**  
Systems of the body in relation to the pathological conditions allied to digestion, 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 (4)**  
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 (4)**  
In-depth study of assessment of nutriture in population groups, and public need for nutrition information. Emphasis on nutrition consultation for health professionals, 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 (3)**  
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
<b>Core Courses:</b> required of every health science major regardless of track.		<b>23</b>
HSC 3300	Health and Social Service Delivery Systems	5
HSC 4101	Management for the Health Professions	5
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.

		Quarter Hours
<b>Required Track Courses:</b>		<b>58</b>
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	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	
<i>Electives:</i>			<b>32</b>
			<b>90</b>

### 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.

			<i>Quarter Hours</i>
			<b>53</b>
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	
<i>Electives</i>			<b>37</b>
			<b>90</b>

### 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.

			<i>Quarter Hours</i>
<i>Required Track Courses:</i>			<b>48</b>
HSC 3300	Health and Social Service Delivery Systems	5	
HSC 3905	Individual Study	10	
HSC 4101	Management for the Health Professions	5	
HSC 4201	Information Systems	5	
HSC 4301	The Team Approach to Service Delivery	5	
HSC 4390	Issues and Trends in Health Care Delivery	3	
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	
<i>Electives:</i>			<b>42</b>
			<b>90</b>

### HEALTH SCIENCE MEDICAL RECORDS ADMINISTRATION TRACK

The curriculum listed below is tentative and should not be interpreted as the final program of studies. 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.

Prerequisites: Anatomy, physiology, biology and chemistry with laboratory.

## MEDICAL RECORDS ADMINISTRATION PROGRAM

		<i>Quarter Hours</i>
HSC 3531	Medical Terminology	2
HSC 3531L	Medical Terminology, Laboratory	1
MRE 3110	Medical Records Administration I	3
MRE 3110L	Medical Records Administration I, Laboratory	2
HSC 3300	Health and Social Service Delivery Systems	5
HSC 3510	Fundamentals of Medical Science I	4
MRE 3800	Directed Practice I	2
HSC 4151	Legal Aspects and Legislation in Health Care	5
ECO	(or other elective with permission of Program Director)	5
MRE 3205	Medical Records Administration II	3
MRE 3205L	Medical Records Administration II, Laboratory	2
HSC 3511	Fundamentals of Medical Science II	4
COC 3300	Introduction to Computers and Computers Applications	5
HSC 3512	Fundamentals of Medical Science III	4
MRE 3810	Directed Practice II	2
HSC 4572	Principles of Epidemiology	5
HSC 4201	Information Systems	5
MRE 4110	Medical Records Administration III	3
MRE 4110L	Medical Records Administration III, Laboratory	2
MRE 4831	Directed Practice III	1
HSC 4101	Management for the Health Professions	5
HSC 4131	Health Care Financial and Accounting Management	5
MRE 4312	Medical Records Administration IV	3
MRE 4312L	Medical Records Administration IV, Laboratory	2
MRE 4830	Directed Practice IV	1
HSC 4111	Health Management Engineering	5
HSC 5120	Human Resources Management in Health Facilities	5
MRE 4304	Problems in Medical Records Administration	2
MRE 4835	Internship in Medical Records Management	5
HSC 4301	The Team Approach to Service Delivery	3
HSC 4390	Issues and Trends in Health Care Delivery	5
Total		<b>106</b>

## 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 (3)

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 (5)

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 (3)

An examination of changing concepts, trends, research, and community responsibilities in the delivery of health and social services to the mentally retarded person.

### HSC 3300 HEALTH AND SOCIAL SERVICE DELIVERY SYSTEMS (5)

Presents history of, and fundamental concepts involved in the health and social service delivery system.

- 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 SCIENCE I (4)**  
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 (4)**  
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 (4)**  
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, ophthalmology, oncology, genetics and anesthesiology.
- HSC 3531 MEDICAL TERMINOLOGY (3)**  
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 (1)**  
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 (1-10)**  
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 (5)**  
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 (5)**  
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 (3)**  
Historical review of family health centers. Considers these centers as an alternative in the delivery of health care. Utilizes lectures and field trips.
- HSC 4101 MANAGEMENT FOR THE HEALTH PROFESSIONS (5)**  
Fundamentals of management for the solution of problems in the organization and operation of health programs.
- HSC 4111 HEALTH MANAGEMENT ENGINEERING (5)**  
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 (5)**  
The financial framework 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 of operating revenue, third party payers, budgeting for operating costs, long-term investment, and long-term financing. The student is expected to understand and be able to participate in the financial decision-making processes of health care organizations.
- HSC 4151 LEGAL ASPECTS AND LEGISLATION IN HEALTH CARE (5)**  
A study of the ways in which the law affects 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 (5)**  
Fundamental concepts of statistics, research design, and data processing as they relate to health programs.
- HSC 4301 THE TEAM APPROACH TO SERVICE DELIVERY (3)**  
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 (5)**  
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 (5)**  
Analysis of important issues, trends, and problems affecting health care delivery in the U.S. Prerequisite: HSC 3300 or permission of instructor
- HSC 4401 PRINCIPLES AND PROGRAMS IN PUBLIC HEALTH (5)**  
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 (5)**  
An in-depth study of the field of epidemiology: its ethical aspects, local, national and international components considered. Some clinical exposure.

- HSC 4630 ISSUES AND PROBLEMS IN GERONTOLOGY** (5)  
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** (5)  
This course is designed to allow the student to investigate special topics of explosive interest in health care, and will be taught by professors outstanding in the topic field covered.
- HSC 4940 CLINICAL INTERNSHIP** (10)  
Course provides an opportunity for the student to 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** (5)  
The personnel administration function in health facilities. Includes study of personnel policies and procedures: recruitment, training and retention of employees, personnel relations and benefits programs. Includes study of motivation in human productiveness, group costs, and retention of employees, labor relations in the health field.
- MRE 3110 MEDICAL RECORDS ADMINISTRATION I** (3)  
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 after discharge. Numbering and filing systems. The medical record: content and format, value and standards for health care facilities.
- MRE 3110L MEDICAL RECORDS ADMINISTRATION I, LABORATORY** (2)  
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** (3)  
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 facilities.
- MRE 3205L MEDICAL RECORDS ADMINISTRATION II, LABORATORY** (2)  
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** (2)  
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** (2)  
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** (3)  
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** (2)  
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** (2)  
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** (3)  
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 ADMINISTRATION IV, LABORATORY** (2)  
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** (1)  
Orientation of the student to medical record-keeping, filing and retrieval systems of neighborhood clinics, nursing care facilities, and specialized institutions including psychiatric and rehabilitative facilities. The last five weeks of this directed practice centers on utilization review procedures for hospitals and nursing care facilities.
- MRE 4830 DIRECTED PRACTICE IV** (1)  
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.

**MRE 4835 INTERNSHIP IN MEDICAL RECORDS MANAGEMENT**

**(5)**

Management in a medical records department for five weeks, under the supervision of a Registered Record Administrator.

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).

Alternate laboratory experience or proficiency testing may be arranged on an individual basis for: (i) graduates 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 technology 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 15th, 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 to majors in the program, and must be taken in the appropriate sequence. Each co-requisite 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.

<i>Required Courses:</i>		<i>Quarter Hours</i>
		<b>81-86</b>
<i>Junior Year</i>		
<i>Fall Quarter</i>		<b>14(13)</b>
MLS 4306C	Clinical Hematology	2
MLS 4306L	Clinical Hematology Laboratory	3
<i>or</i>		
MLS 4307L	Directed Study in Hematology	2
MLS 4110C	Hematology Correlations	2
MCB 3013	General Microbiology Lectures and Laboratory	7
<i>Winter Quarter</i>		<b>16(15)</b>
MLS 4405C	Clinical Microbiology	2
MLS 4405L	Clinical Microbiology Laboratory	3
<i>or</i>		
MLS 4406L	Directed Study in Clinical Microbiology	2
MLS 4120C	Microbiology Correlations	2
PCB 3233C	Immunology	5
MLS 4320C	Advanced Hematology	3
<i>Spring Quarter</i>		<b>15(14)</b>
MLS 4535C	Blood Banking and Serology	2
MLS 4535L	Blood Banking and Serology Laboratory	3
<i>or</i>		
MLS 4536L	Directed Study in Blood Banking (for M.L.T.)	2
MLS 4130C	Clinical Correlations in Blood Banking	2
MLS 3430C	Medical Parasitology	2
MLS 3430L	Medical Parasitology	1
CHM 3120	Quantitative Analysis (lecture and laboratory)	6
<i>Summer Quarter</i>		
BCH 3030C	Biochemistry (lecture only required)	5
<i>Senior Year</i>		
<i>Fall Quarter</i>		<b>16(14)</b>
MLS 4625C	Clinical Chemistry Methods	4
MLS 4625L	Clinical Chemistry Laboratory	4
<i>or</i>		
MLS 4626L	Directed Study in Clinical Chemistry	2
MLS 4140C	Clinical Correlations in Chemistry	2
MLS 4460C	Advanced Microbiology	4
MLS 5934C	Seminar I	1
<i>Winter Quarter</i>		<b>18</b>
MLS 4820L	Practicum I	6
MLS 4530C	Advanced Blood Banking	3
MLS 4755C	Laboratory Statistics and Quality Control	2
MLS 5935C	Seminar II	1

<i>Spring Quarter</i>		<b>16</b>
MLS 4821L	Practicum II	6
MLS 4630C	Advanced Clinical Chemistry	5
MLS 4700C	Medical Laboratory Management	2
MLS 5936C	Seminar III	1

*Quarter Hours*  
**87(82)**

*Required Courses:*

*Junior Year*

<i>Fall Quarter</i>		<b>14(13)</b>
MLS 4306C	Clinical Hematology	2
MLS 4306L	Clinical Hematology Laboratory	3
<i>or</i>		
MLS 4307L	Directed Study in Hematology	2
MLS 4110C	Hematology Correlations	2
MCB 3013	General Microbiology Lecture and Laboratory	7
<i>Winter Quarter</i>		<b>15(14)</b>
MLS 4405C	Clinical Microbiology	2
MLS 4405L	Clinical Microbiology Laboratory	3
<i>or</i>		
MLS 4406L	Directed Study in Clinical Microbiology	2
MLS 4120C	Microbiology Correlations	2
MLS 4320C	Advanced Hematology	3
PCB 3233C	Immunology	5
<i>Spring Quarter</i>		<b>16(15)</b>
MLS 4535C	Blood Banking and Serology	2
MLS 4535L	Blood Banking and Serology Laboratory	3
<i>or</i>		
MLS 4536L	Directed Study in Blood Banking	2
MLS 4130C	Clinical Correlations in Blood Banking	2
CHM 3120	Quantitative Analysis (Lecture and Laboratory)	6
MLS 3430C	Medical Parasitology	2
MLS 3430L	Medical Parasitology Laboratory	1
<i>Summer Quarter</i>		
BCH 3033	Biochemistry (or taken at student convenience)	5
MLS 4625L	Clinical Chemistry Laboratory (1/2 of class)	4

*Senior Year*

<i>Fall Quarter</i>		<b>16(14)</b>
MLS 4625C	Clinical Chemistry Methods	4
MLS 4625L	Clinical Chemistry Laboratory (1/2 of class)	4
<i>or</i>		
MLS 4626L	Directed Study in Clinical Chemistry	2
MLS 4140C	Clinical Correlations in Chemistry	2
MLS 4460C	Advanced Microbiology	4
MLS 5934C	Seminar I	1
<i>Winter Quarter</i>		<b>12</b>
MLS 4820L	Practicum I	6
MLS 4530C	Advanced Blood Banking	3
MLS 4755C	Laboratory Statistics and Quality Control	2
MLS 5935C	Seminar II	1
<i>Spring Quarter</i>		<b>14</b>
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*

**Ofelia Clouston**, *Assistant Professor*

**Esther Coplowitz**, *Assistant Professor*

**Mercedes Perez-Millan**, *Visiting*

*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

### *Required nursing courses:*

	<i>Quarter Hours</i>
	<b>45</b>
NUU 3431    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

### *Support courses:*

	<i>Quarter Hours</i>
	<b>30</b>
ANT 4451    Racial and Cultural Minorities	5
<i>or</i>	
SOC 4745    Minorities	
SOW 3703    Self-awareness, Self-modification	5
PCB 4701    Human Systemic Physiology	5
STA 3013    Statistics for Health & Social Sciences	5
<i>or</i>	
STA 3122    Introduction to Statistics I	
SOC 3300    The Community	5
HSC 4411    Epidemiology	5

### *Free Electives*

**15**

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**90**

313

## COURSE DESCRIPTIONS

### DEFINITION OF PREFIXES

NUR—Nursing; NUU—Nursing Universals.

#### **NUR 4335C CRISIS INTERVENTION (3)**

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 (2)**

A dynamic approach to the nature, scope, and influence 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, emphasizing effective involvement in all facets of practice. Prerequisite: Senior standing

#### **NUR 4642 INTERNATIONAL DIMENSIONS OF NURSING AND HEALTH CARE (4)**

Analysis of forces that affect health care in any country, with emphasis on nursing practice and education. Nursing elective. Open to non-majors.

#### **NUR 4910C PROJECT IN NURSING RESEARCH (3)**

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 (4-8)**

On-site study 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 (4)**

An overview of the nursing process: communication interaction processes in nursing; teaching/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 (1)**

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 (2)**

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 (3)**

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 3210C, NUU 3211C.

#### **NUU 3431 NURSING IN EVOLVING HEALTH CARE DELIVERY SYSTEM (3)**

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 (2)**

Theoretical base of decision making processes to effect nursing intervention for achievement of comprehensive nursing goals. Emphasis on problem solving approach to professional and social issues. For nursing majors only. Prerequisites NUU 3431, NUU 3210C, NUU 3211L. May be taken concurrently with NUU 3222 and NUU 3221L. Open to non-majors with consent of instructor.

#### **NUU 4230C NURSING PROCESS APPLIED TO INDIVIDUALS (5)**

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 (4)**

Concurrent with NUU 4230C. 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. Senior standing required.

#### **NUU 4231C NURSING PROCESS APPLIED TO FAMILIES (4)**

Nursing process in a family-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 (4)**

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 (3)**

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 (2)**

Concurrent with NUU 4232C Clinical application of the nursing process applied to communities. For nursing majors only

**NUU 4330C EVALUATION OF NURSING PRACTICE (4)**

A broad overview of the evaluation process in nursing practice for improving the quality of patient care. Nursing elective. Open to non-nursing majors.

**NUU 4410 ISSUES AND PROBLEMS IN NURSING ADMINISTRATION (4)**

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 (3)**

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 4230L.

## OCCUPATIONAL THERAPY

**Beth R. Weiner**, *Assistant Professor and Acting Chairperson*

**Suze Dudley**, *Visiting Assistant Professor*

**Karen Bergman**, *Visiting Assistant Professor*

**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:*

		<i>Junior Year</i>	<i>Quarter Hours</i>
<i>Fall Quarter</i>			
OTH 3000	Introduction to Occupational Therapy		3
OTH 3120	Therapeutic Media I		5
PCB 3702	Intermediate Human Physiology		5
ZOO 3733	Human Gross Anatomy I		4
ZOO 3733L	Human Gross Anatomy Lab I		1
			<b>18</b>
<i>Winter Quarter</i>			
OTH 3121	Therapeutic Media II		5
PHT 3121	Applied Kinesiology		5
ZOO 3734	Human Gross Anatomy II		4
ZOO 3734L	Human Gross Anatomy Lab II		1
CLP 4144	Abnormal Psychology		5
			<b>20</b>

<i>Spring Quarter</i>			
OTH 3420	Therapeutic 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	17
<i>Summer Quarter</i>			
OTH 3813	Field Work Experience	4	4
<i>Senior Year</i>			
<i>Fall Quarter</i>			
OTH 3123	Technology for Occupational Therapy	5	
OTH 4320	Psychiatric Occupational Therapy Theory	5	
OTH 4422	Physical Disability Theory	5	15
<i>Winter Quarter</i>			
OTH 4190	Disability Evaluation I	5	
OTH 4210	Developmental Theory	5	
OTH 4260	Disability Evaluation II	5	
OTH 4321	Psychiatric Occupational Therapy Theory	5	20
<i>Spring and Summer Quarters</i>			
OTH 4850	Field Work Experience	12	
OTH 4851	Field Work Experience	12	24
<i>Fall Quarter</i>			
OTH 4700	Organization and Administration	5	
OTH 4750	Rehabilitation Seminar	5	
<i>Electives: 5 quarter hours of electives are taken during the second fall quarter of the senior year</i>			
		5	15
			<hr/>
			133

## COURSE DESCRIPTIONS

### DEFINITION OF PREFIXES

CLP—Psychology; OTH—Occupational Therapy; PCB—Biological Sciences; PHT—Physical Therapy; ZOO—Biological Sciences.

- OTH 3000 INTRODUCTION TO OCCUPATIONAL THERAPY (3) (F)**  
History and development of the profession. 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 I (5) (F)**  
The study of selected major crafts as therapeutic modalities.
- OTH 3121 THERAPEUTIC MEDIA II (5) (W)**  
The use of minor crafts as therapeutic modalities.
- OTH 3411 PATHOLOGY (2) (S)**  
Brief review of organ systems, and primary diseases that affect each organ, with specific emphasis on the disabilities that would result from such diseases. Prerequisites: Anatomy, physiology.
- OTH 3420 THERAPEUTIC TECHNIQUES IN PHYSICAL DISABILITIES (2)**  
Upper extremity prosthetic and orthotic devices are investigated. Presentation includes the biomechanics, anatomy, materials and appliances necessary for fabrication, pre- and post-prosthetic and orthotic evaluation, checkout procedures and training methods. Prerequisites: ZOO 3733, 3734, 3743.
- OTH 3421 PHYSICAL DISABILITY THEORY (3) (S)**  
The study of occupational therapy as related to physical disabilities. Development and status of current treatment techniques. Lecture and lab. Prerequisites: Anatomy, physiology, kinesiology.

- OTH 3813 FIELD WORK EXPERIENCE** (4) (SS)  
Pre-clinical experience in an approved training center.
- OTH 4190 DISABILITY EVALUATION I** (5) (W)  
Evaluation of work potential in the cultural milieu. Lecture and lab.
- OTH 4210 DEVELOPMENTAL THEORY** (5) (W)  
The use of developmental theory in occupational therapy practice.
- OTH 4260 DISABILITY EVALUATION II** (5) (W)  
Evaluation procedures in the testing of perceptual-motor dysfunctions. Prerequisites: Anatomy, physiology, neuroscience. Lecture and lab.
- OTH 4320 PSYCHIATRIC OCCUPATIONAL THERAPY THEORY** (5) (F)  
Theories and approaches to psychological aspects of illness in the rehabilitative process. Lecture and lab.
- OTH 4321 PSYCHIATRIC OCCUPATIONAL THERAPY THEORY II** (5) (W)  
Continuation of OTH 4320. Lecture and lab.
- OTH 4422 PHYSICAL DISABILITY THEORY** (5) (F)  
Continuation of OTH 3421. Prerequisite: OTH 3421.
- OTH 4700 ORGANIZATION AND ADMINISTRATION** (5) (F)  
Administrative procedures in planning and operating an occupational therapy treatment program.
- OTH 4750 REHABILITATION SEMINAR** (5) (F)  
Research in occupational therapy and related medical fields.
- OTH 4850 FIELD WORK EXPERIENCE** (12)  
Three month internship in a physical disabilities treatment center.
- OTH 4851 FIELD WORK EXPERIENCE** (12)  
Three month internship in a mental health treatment center.
- OTH 4852 FIELD WORK EXPERIENCE** (Variable)  
Internship in a specialized treatment area.
- OTH 4853 FIELD WORK EXPERIENCE** (2) (F,W,S)  
Pre-clinical experience in an approved training center to meet individual interests and needs. Includes 8 hours of field work.
- OTH 5262 EVALUATION AND TREATMENT OF PERCEPTUAL-MOTOR DYSFUNCTION** (1-5)  
The study of specific evaluation tools, and developing treatment procedures directly related to these tests.
- OTH 5329 CURRENT TRENDS IN MENTAL HEALTH AS RELATED TO OCCUPATIONAL THERAPY PRACTICE** (1-5)  
Specialized study of specific treatment theories and the application of these theories to clinical practice.
- OTH 5600 THE STUDY OF GERONTOLOGY AS RELATED TO OCCUPATIONAL THERAPY PRACTICE** (1-5)  
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** (1-5)  
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

**Terry W. Higgins**, Assistant Professor

**Catherine C. Cambridge**, Assistant Professor

**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.

Campus Location: Tamiami Campus only.

DEGREE: *Bachelor of Science in Physical Therapy*

LOWER DIVISION PREPARATION:

*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:*

**Physical Therapy**

		<i>Quarter Hours</i>
		<b>118-123</b>
<i>Junior Year</i>		
<i>Fall Quarter</i>		<b>17</b>
PCB 3703	Human Physiology I	4
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
<i>Winter Quarter</i>		<b>18</b>
PCB 3704	Human Physiology II	4
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
<i>Spring Quarter</i>		<b>20</b>
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
<i>Summer Quarter</i>		<b>16</b>
PHT 3231	Rehabilitation	3
PHT 3232C	Prosthetics and Orthotics	3
PHT 3310	Orthopedic Surgery	4
PHT 3311	Clinical Orthopedics	3
PHT 3812	Clinical Clerkship II	3
<i>Senior Year</i>		
<i>Fall Quarter</i>		<b>17</b>
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
<i>Winter Quarter</i>		<b>16</b>
PHT 4823	Clinical Clerkship IV	3
PHT 4234C	Neurophysiologic Techniques	6
PHT 4510	Organization and Administration	5
PHT 4932	Research Methods and Design	2
<i>Spring Quarter</i>		<b>12</b>
PHT 4824	Clinical Internship	12
PHT 4905	Independent Study	(1-6)
<i>Summer Quarter</i>		<b>3</b>
PHT 4825	Clinical Internship	3

# COURSE DESCRIPTIONS

## DEFINITION OF PREFIXES

PCB—Biological Sciences; PHT—Physical Therapy; ZOO—Biological Sciences.

### **PHT 3001 INTRODUCTION TO PHYSICAL THERAPY (2) (F)**

A survey course of the present status of physical therapy as a health care profession.

### **PHT 3121 APPLIED KINESIOLOGY (5) (W)**

A course providing learning experiences to develop skills in palpation, goniometry, manual muscle testing and motion analysis of normal subjects. For occupational therapy students.

### **PHT 3122 KINESIOLOGY I (4) (F)**

A study of anatomical, physiological and biomechanical principles as they relate to body movement: coverage of upper extremity.

### **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 gait.

### **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 testing, goniometry, and x-ray. Abnormal gait patterns and posture evaluation will be presented.

### **PHT 3202C BASIC THERAPEUTIC SKILLS (4) (W)**

A study of the physiological rationale for the use of the electrophysiological modalities, therapeutic exercise, massage transfers, 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, fabrication 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 (2)**

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.

### **PHT 4141 EVALUATION OF THE DEVELOPING CHILD (3) (F)**

A study of the neuromuscular development characteristics of the child; information necessary as prerequisite to Neurophysiologic Techniques (PHT 4234C).

### **PHT 4234C NEUROPHYSIOLOGIC TECHNIQUES (6) (W)**

A study and application of the exercise techniques of Bobath, Rood, Brunstrom, Knott and Voss to the treatment of children and adults with neurophysiologic deficits.

### **PHT 4235C ELECTRODIAGNOSIS (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 (3) (SS)**

Extension of PHT 4825.

### **PHT 4825 CLINICAL INTERNSHIP II (12) (S)**

Supervised full-time clinical experience, designed to afford the student the opportunity to gain experience

in the total care of patients, in the administration 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 of 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:

<i>Required Courses:</i>		<i>Quarter Hours</i>
		<b>75</b>
<i>Core Courses:</i>		<b>70</b>
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	1
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
SOW 4523	Integrative Field Seminar II	1
SOW 4675	Social Work Philosophy and Values	5

*Courses in Another Discipline*

**5**

ANT 4451	Racial and Cultural Minorities	5
SOC 4745	Minorities (Race and Ethnic Relations)	5
SOC 4746	Social Conflict in Multi-Ethnic Societies	5

Electives — with approval of the faculty advisor

15

90

*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 the 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 (5)**

This course is a sequential and cumulative examination of social welfare and the changing role of social work. The focus 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 PRACTICE I (5) (F,W,S,SS)**

A competency-based course designed to provide students with the beginning practitioner. Generic values, attitudes and processes in client-worker relationship-building are discussed and analyzed. Authentic case material is utilized 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 (5)**

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 experience 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 frequently encountered by social work practitioners. Emphasis is placed on UNDERSTANDING bio-psycho-socio-cultural factors contributing to problems. Prerequisite: SOW 3113 or its equivalent.

#### **SOW 4193 THE SYSTEMS APPROACH IN THE SOCIAL SERVICES (5)**

This course will focus on general systems theory and its consequences for a revision of the world picture. Emphasis will be on the significance of the systems approach in models elaborated for social service systems. Prerequisite: Permission of instructor.

#### **SOW 4233 SOCIAL WELFARE POLICY AND SERVICES II (5) (F,W,S)**

This course considers characteristics and processes common to organizations within the social service

system, and the impact of 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. Prerequisites: SOW 3313 and SOW 4125 or their equivalents. Corequisites: 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 practice. Identification of generalist skills and prevalent models of community organization in social work practice. 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 data, data depiction, and report writing. This course is also designed to enable social work students to read research articles more critically, understand reports of results, 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 toward a higher level of awareness and understanding of needs and behavioral responses. Generic skills are applied more selectively with increasing interest and proficiency in one or more practice areas. This second placement affords the student an opportunity to become a more effective 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 together 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 (5)**

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 social and to assist students in the identification 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 (5)**

An exploration of various critical issues of concern to the social work profession. Prerequisite: Permission of instructor.

**SOW 5272 SOCIAL WELFARE: CROSS-CULTURE COMPARISONS (5)**

A seminar in which students will analyze and compare social welfare policy, problems, and programs in various countries. This course is designed for seniors and graduate students. Prerequisites: 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 for seniors and graduate students. Prerequisites: SOW 3313 and SOW 4332, or permission of instructor.

**SOW 5435 EVALUATING SOCIAL SERVICE PROGRAMS I (5)**

Introduction to experimental and quasi-experimental designs and measurement techniques suitable for evaluation of social service programs. Field experience in defining agency or program goals objectively and designing an actual program evaluation are provided. This course is designed for seniors and graduate students. Prerequisite: SOW 4403 or equivalent.

**SOW 5436 EVALUATING SOCIAL SERVICE PROGRAMS II**

(5)

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**

(5)

This course is designed to develop an understanding of the multiple 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 standing.

**SOW 5684 PROFESSIONAL VALUES IN THE HUMAN SERVICES**

(5) (S)

This course is designed to assist students in identification, exploration, and experiencing the values inherent in professionalism, 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**

(1-10)

Individually selected program of supervised data collection and analysis. Prerequisite: SOW 4403 or permission of instructor.



# SCHOOL OF HOSPITALITY MANAGEMENT

Gerald W. Lattin, *Dean*  
 Anthony G. Marshall, *Associate Dean  
and Professor*  
 William J. Morgan, Jr., *Professor*  
 Norman Ringstrom, *Professor*  
 Rocco Angelo, *Associate Professor*  
 Michael Hurst, *Associate Professor*  
 Richard A. Huse, *Associate Professor*  
 Charles Ilvento, *Associate Professor*  
 Dennis A. Marzella, *Associate Professor*  
 Leonard Berkowitz, *Assistant Professor*  
 Percival Darby, *Assistant Professor*  
 Robert Daun, *Assistant Professor*  
 Fritz Hagenmeyer, *Assistant Professor*

Elisa Moncarz, *Assistant Professor*  
 Gregory Perry, *Assistant Professor*  
 Irving Sicherman, *Assistant Professor*  
 Peter Martini, *Lecturer*  
 Steven Moll, *Lecturer*  
 Edwin B. Dean, *Visiting Assistant  
Professor*  
 Gui Govaert, *Visiting Assistant Professor*  
 David Grier, *Visiting Assistant Professor*  
 Kevin Robson, *Visiting Assistant  
Professor*  
 Ted White, *Visiting Assistant Professor*  
 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
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HFT 3423	Hospitality Accounting Information Systems	5
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or

HFT 3413	Lodging Systems & Procedures	5
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HFT 4464	Interpretation of Hospitality Financial Statements	5
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HFT 4654	Financial and Legal Aspects of Real Estate Development	5
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HFT 4474	Profit Planning and Decision-Making in the Hospitality Industry	5
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*Food and Beverage Management*

FSS 3221	Introductory Commercial Service Production	5
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FSS 3234	Volume Feeding Management	5
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HFT 3263	Restaurant Management	5
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FSS 3243	Basic Meat Science	5
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*Administration*

HFT 3603	Law as Related to the Hospitality Industry	5
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HFT 3945	Advanced Internship in Hospitality Management	5
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HFT 3503	Marketing of Hospitality Services	5
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HFT 3323	Physical Plant Management	5
MAR 3023	Principles of Marketing	5
<i>Electives:</i>		<b>30</b>

**100**

\*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 students who have not yet completed two 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 after a personal interview — and who will enroll concurrently in a junior college to satisfy 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 satisfactory progress toward completion of both the general education requirements and the required professional courses, and to satisfy 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

**Hospitality Management**

		<i>Quarter Hours</i>
<i>Required Courses: Management Accounting, Finance &amp; Information Systems</i>		<b>25</b>
HFT 3453	Operations Control for Hospitality Industry Management	5
HFT 3423	Hospitality Accounting Information Systems	5
<i>or</i>		
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
<i>Food and Beverage Management</i>		<b>20</b>
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
<i>Administration</i>		<b>30</b>
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
<i>Electives:</i>		<b>25</b>

**100**

## RESTAURANT AND FOOD SERVICE MANAGEMENT

		<i>Quarter Hours</i>
<i>Required Courses: Management Accounting, Finance &amp; Information Systems</i>		<b>15</b>
HFT 3423	Hospitality Accounting Information Systems	5

HFT 4464	Interpretation of Hospitality Financial Statements	5	
HFT 4474	Profit Planning and Decision-Making in the Hospitality Industry	5	
<i>Food and Beverage Management</i>			<b>25</b>
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	
FSS 4 105	Purchasing and Menu Planning	5	
<i>Administration</i>			<b>35</b>
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 3323	Physical Plant Management	5	
HFT 4234	Union Management Relations in the Hospitality Industry	5	
MAR 3023	Principles of Marketing	5	
<i>Electives: (Five hours must be taken in either FSS 3232 or FSS 4431)</i>			<b>25</b>
			<hr/>
			<b>100</b>

## INTERNATIONAL HOTEL MANAGEMENT

		<i>Quarter Hours</i>	
<i>Required Courses: Management Accounting, Finance &amp; Information Systems</i>			<b>20</b>
HFT 3453	Operations Control for Hospitality Industry Management	5	
HFT 3423	Hospitality Accounting Information Systems	5	
<i>or</i>			
HFT 3413	Lodging Systems & Procedures	5	
HFT 4464	Interpretation of Hospitality Industry Financial Statements	5	
HFT 4474	Profit Planning and Decision-Making in the Hospitality Industry	5	
<i>Food and Beverage Management</i>			<b>15</b>
FSS 3221	Introductory Commercial Food Service Production	5	
FSS 3234	Volume Feeding Management	5	
HFT 3263	Restaurant Management	5	
<i>Administration</i>			<b>35</b>
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 3323	Physical Plant Management	5	
HFT 3713	International Travel and Tourism	5	
MAR 3023	Principles of Marketing	5	
<i>Electives:</i>			<b>30</b>
			<hr/>
			<b>100</b>

## TOURISM AND TRAVEL MANAGEMENT

		<i>Quarter Hours</i>
<i>Required Courses: Management Accounting, Finance &amp; Information Systems</i>		<b>15</b>
HFT 3423	Hospitality Accounting Information Systems	5
<i>or</i>		
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
<i>Administration</i>		<b>25</b>
HFT 3603	Law as Related to the Hospitality Industry	5
HFT 3000	Introduction to 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
<i>Travel and Tourism Management</i>		<b>35</b>
HFT 3700	Fundamentals of Tourism	5
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
<i>Electives: (Five hours must be taken in transportation)</i>		<b>25</b>
		<hr style="width: 100%; border: 0.5px solid black;"/>
		<b>100</b>

## GRADUATE STUDY

### HOTEL AND FOOD SERVICE MANAGEMENT

Campus Location: Tamiami Campus only

DEGREE: *Master of Science in Hotel and Food Service Management*

		<i>Quarter Hours</i>
<i>Required Core Courses:</i>		<b>30</b>
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
<i>Electives: (5000 and 6000 level)</i>		<b>20</b>
		<hr style="width: 100%; border: 0.5px solid black;"/>
		<b>50</b>

## COURSE DESCRIPTIONS

### DEFINITION OF PREFIXES

FOS—Food Science; FSS—Food Service Systems; HFT—Hospitality, Food, Tourism.

### UNDERGRADUATE

#### FOS 4201 SANITATION IN FOOD SERVICE OPERATION (5)

The causes and prevention of food 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 (5)

An advanced course which considers the variable factors of meat, poultry and fish utilization. Emphasis is placed upon newer techniques in purchasing, maximizing yields, and providing products in unique form.

The use of TVP and other analogs is considered, as are the functions of 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 (5)

Provides an introduction to commercial food preparation, nutrition, standard product identification, storage and supervisory techniques in the area of food preparation. Course includes classroom instruction, demonstrations and actual cooking experience.

#### FSS 3232 INTERMEDIATE QUANTITY FOOD PRODUCTION TECHNIQUES (5)

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. Prerequisite: FSS 3221 or equivalent.

#### FSS 3234 VOLUME FEEDING MANAGEMENT (5)

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 profit 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 (5)

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 (5)

Fundamentals of meat: quality yield, utilization of cuts, availability, costing, buying, inventorying, packaging, labor, and trends.

#### FSS 3252 FOOD AND BEVERAGE TECHNOLOGY (5)

A course designed to explore principles, and permit students the opportunity to master procedures, in the area of food and beverage technology.

#### FSS 3272 BEVERAGE MANAGEMENT (5)

An introduction to the identification, use and service of wines and other alcoholic beverages, with an in-depth 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 (5)

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 staff. Item analysis and merchandising features are emphasized.

#### FSS 4315 INSTITUTIONAL FOOD SERVICE MANAGEMENT (5)

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 (5)

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 specification 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 (5)

Defines 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 (5)

This is an application of marketing and advertising principles to the specific area of food and beverage for hotels and restaurants.

- FSS 5361 ADVANCED FOOD SERVICE OPERATION (5)**  
 A senior course designed to coordinate the various management functions covered in previous courses into a comprehensive approach to profitable food service operations.
- FSS 6365 FOOD SERVICE SYSTEMS (5)**  
 Principles of system analysis applied to the food service industry. Attention is given to the organization of modern food production, preparation, and distribution systems. Case study problems require application of economic and management principles for solution.
- FSS 6452 ADVANCED FOOD SERVICE DESIGN OPERATIONS (5)**  
 Advanced planning, programming and project documentation for commercial food service facilities. Spatial, environmental and electro-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 (5)**  
 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 (5)**  
 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 periodically.
- HFT 3203 FUNDAMENTALS OF MANAGEMENT IN THE HOSPITALITY INDUSTRY (5)**  
 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 (5)**  
 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 food to gourmet. Industry leaders will present successful concepts of restaurant operation.
- HFT 3313 HOSPITALITY PROPERTY MANAGEMENT (5)**  
 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 (5)**  
 A comprehensive survey of engineering, maintenance and efficiency control in hotels, restaurants and institutions.
- HFT 3343 HOTEL AND RESTAURANT PLANNING AND DESIGN (5)**  
 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 (5)**  
 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 (5)**  
 Detailed examination of the functions 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 (5)**  
 The study of an accounting system for hospitality operations within the context of the firm's overall information system. The flow of data from 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 (5)**  
 Lecture, discussion, case studies and field trips specifically designed to expose the future club manager, golf professional and turf manager to club operations. Introduction to the uniform system of accounts for clubs, annual club studies for operating results, control systems, taxation, budgeting and management reports.
- HFT 3453 OPERATIONS CONTROL FOR HOSPITALITY INDUSTRY MANAGEMENT (5)**  
 Study of the management tools available to control sales and expenses within hospitality operations. Detailed analysis of the responsibility 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 (5)**  
 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 (5)**  
 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 (5)**  
 The course focuses on organizing sales and servicing effort and executing marketing strategy by

developing sales strategies, plans and tactics for hospitality corporations and tourist destinations. Special emphasis is placed on group markets and gaining travel retailer support for destinations, hotel corporations and cruiselines. The course may be followed by a sales management internship. Prerequisite: HFT 3503.

**HFT 3603 LAW AS RELATED TO THE HOSPITALITY INDUSTRY (5)**

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 study approach is used to develop an awareness and understanding of the legal problems confronting the executive in his policy and decision making role.

**HFT 3700 FUNDAMENTALS OF TOURISM (5)**

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 (5)**

An introduction to the complete international scope of travel and tourism. A brief analysis of regional framework and specific regions of the world, the interrelationship between human society and the physical environment. Tourism as a factor in economic development and its cultural and sociological factors are explored. An analysis of the international organization of tourism and the facilitation procedures required for its successful implementation are highlighted.

**HFT 3722 RETAIL TRAVEL AGENCY MANAGEMENT (5)**

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 (5)**

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, tour agencies and transportation systems. Prerequisite: HFT 3722.

**HFT 3733 CREATIVE TOUR PACKAGING (5)**

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 in-depth study of the promotional aspects of tour packaging.

**HFT 3753 CONVENTION AND TRADE SHOW MANAGEMENT (5)**

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 (5)**

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 (5)**

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 (5)**

Experience in all the major phases of hospitality operations. Reports are required.

**HFT 3945 ADVANCED INTERNSHIP IN HOSPITALITY MANAGEMENT (5)**

Structured 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. 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 (5)**

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 (5)**

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 (5)**

A course designed to focus on the unique problems of resort hotel management and the application of special techniques to meet these problems.

**HFT 4293 RESTAURANT MANAGEMENT SEMINAR (5)**

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 (5)**

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 (5)**  
In-depth study of hospitality industry financial statements including consideration of the significant relationships between the various accounts found on financial reports. The statement of changes in financial position is studied, emphasizing funds as a means of payment. Major emphasis is placed upon trend analysis, ratio 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 (5)**  
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, cost-volume profit analysis, capital budgeting and tax considerations. Prerequisites: HFT 4464, HFT 4465.
- HFT 4485 SEMINAR IN TAX PLANNING FOR THE HOSPITALITY INDUSTRY (5)**  
Develops tax awareness and the ability to recognize the possible tax implications of business decisions. Tax considerations are studied for 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 (5)**  
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 (5)**  
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 franchising.

## GRADUATE

- HFT 5476 FEASIBILITY STUDIES FOR THE HOSPITALITY INDUSTRY (5)**  
A survey of various theories and techniques available by which management may determine the financial feasibility of investments in the hospitality field. Prerequisites or Corequisites: HFT 3503, HFT 4474.
- HFT 5495 SEMINAR IN HOSPITALITY INDUSTRY FINANCIAL MANAGEMENT SYSTEMS (5)**  
Visits to various hospitality businesses for seminars with management team members. Lectures, demonstrations and discussion of each operation's methods and procedures, with emphasis on accounting and control systems. Prerequisite: Permission of the instructor.
- HFT 5595 (HRM 533) PROBLEMS IN MARKETING (5)**  
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 (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 6226 MOTIVATION AND LEADERSHIP (5)**  
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 (5)**  
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 (5)**  
A consideration of the various environments within which the international hospitality firm operates. Organizational, financial and marketing factors are of major concern. Emphasis is placed on those problems and constraints which are uniquely different from problems of firms engaged in domestic operations of a similar nature.
- HFT 6286 THE ORGANIZATION AND ITS ENVIRONMENT (5)**  
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 (5)**  
Attention is focused on major problems facing management in today's economy. Special emphasis is placed on the food service industry. Research of the current literature, class analysis and discussion.
- HFT 6297 SEMINAR IN MANAGEMENT METHODS (5)**  
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.
- HFT 6446 HOSPITALITY INDUSTRY ORGANIZATIONAL INFORMATION SYSTEMS (5)**  
Study of information systems in the hospitality industry. Consideration of the design and development of

an information system based on user needs. Emphasis on identification and specification of user requirements and the selection of the appropriate design. Students work on a systems development project.

**HFT 6456 OPERATIONS CONTROL (5)**

Focus is directed to the information used in the decision process and the information flow associated with each decision process throughout hotel or restaurant enterprises.

**HFT 6477 FINANCIAL MANAGEMENT FOR THE HOSPITALITY INDUSTRY (5)**

A study of the principles of financial management and their application to the hospitality industry. Discussion and case studies are used to develop plans for meeting financial needs (short, intermediate and long term) from internal sources or capital markets. Attention is focused on capital budgeting, leasing, franchising, mergers, consolidations and current financial issues in the hospitality industry.

**HFT 6486 INVESTMENT ANALYSIS FOR THE HOSPITALITY INDUSTRY (5)**

Advanced investment methods and opportunities with emphasis on securities of the hospitality industry, financing techniques, syndication, negotiations.

**HFT 6487 TAXATION FEDERAL AND STATE (5)**

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 (5)**

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 (5)**

Team-work analysis and recommended solution of an actual marketing problem which has been posed by a local operator.

**HFT 6697 HOSPITALITY LAW SEMINAR (5)**

New laws and their impact on the hospitality industry are examined. Students research and publish "industry alert bulletins," explaining the impact of new legislation on the hospitality industry. Prerequisite: HFT 3603 or equivalent.

**HFT 6916 HOSPITALITY INDUSTRY PROJECT (5)**

An individualized research project dealing with current problems in the hospitality industry. Topics and research methods must be approved by the graduate faculty before registration for the course.

**HFT 6946 GRADUATE INTERNSHIP (5)**

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 (5)**

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, Mechanical, Civil, Construction, Environmental and Urban Systems), Construction Management, 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.
5. Satisfy the particular requirements for his or her own major and all University requirements for graduation.
6. 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.
7. 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 transfer 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 non-technical 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 an individual 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 transfer.

### 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 non-traditional 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 institutions 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

**36**

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*  
**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 Technology, 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.

UPPER DIVISION PROGRAM:

		<i>Quarter Hours</i>
<i>Major Requirements:*</i>		<b>88</b>
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 4335C	Site Development	5

\*or demonstrated competency

<i>Electives:</i> selected with an advisor to meet degree requirements and program objectives (minimum requirement):	<b>2</b>
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>
<b>(Minimum)</b>	<b>90</b>

## 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.

UPPER DIVISION PROGRAM:

		<i>Quarter Hours</i>
<i>Major Requirements:*</i>		<b>73</b>
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 3210L	Soil Mechanics Laboratory	2
ARC 4335	Site Development	5
ARC 4590C	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): 17

**(Minimum) 90**

## 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.

		<i>Quarter Hours</i>
<i>Major Requirements:*</i>		<b>86</b>
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	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): 4

**(Minimum) 90**

## 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:

		<i>Quarter Hours</i>
		<b>90</b>
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	3
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

**(Minimum) 90**

*Technical Electives:* Up to 20 credits to be selected from design, construction or related areas, with the approval of the advisor.

*Non-Technical Electives:* As required to meet program objectives and general education requirements.

## COURSE DESCRIPTIONS

### 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 (5)

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 (5)

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 (5)

A study of the types of construction and materials used in buildings. How materials are properly installed and inspected, including the use of special equipment, in accordance to specifications, codes, standards, and agencies' recommendations.

### ARC 3484C ADVANCED ARCHITECTURAL DRAWING AND DESIGN I (5)

Methodology of planning and design of architectural projects, with special emphasis on working drawings and detail drawings. Prerequisite: ARC 3127C.

### ARC 3586 BUILDING SYSTEMS (5)

Introduction to the problems related to the production of mass housing and applications of "industrialization" to the process of building. Systematic analysis and evaluation techniques of modular construction. Prerequisite: ARC 3466, or equivalent.

- ARC 3786 SURVEY OF ARCHITECTURAL HISTORY (5)**  
 Comprehensive study of architectural forms, styles and construction techniques throughout history. Prerequisite: ARC 3466, or equivalent.
- ARC 4039 ARCHITECTURAL DESIGN (5)**  
 Integrated study of basic design concepts and principles of design. Development of architectural design products, presentation drawings, plans and quantity surveys. Prerequisite: ARC 3127C, or equivalent.
- ARC 4270C PROFESSIONAL OFFICE PRACTICE (5)**  
 Assignments in office administration, negotiation of contracts, fee structure, client and public relations. Business organization, procedure scheduling and task allocation within an architectural office. Prerequisite: BCN 3740, or equivalent.
- ARC 4335C SITE DEVELOPMENT (5)**  
 Fundamentals of site planning: physical, economic, social and governmental constraints affecting development; zoning; land use controls; 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 (3)**  
 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 4354C CONSTRUCTION AND DESIGN OF NATURAL RECREATION AREAS (5)**  
 The course includes design factors, construction requirements, and techniques in developing outdoor recreation facilities. 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 facility management. Prerequisite: None.
- ARC 4485C ADVANCED ARCHITECTURAL DRAWING AND DESIGN II (5)**  
 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 (5)**  
 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 (3)**  
 Experimental approach to new materials and methods applicable to the field of construction. Prerequisite: consent of instructor.
- BCN 3210C CONSTRUCTION MATERIALS (5)**  
 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 (3)**  
 Methods, procedures, and equipment used in residential, commercial and heavy construction. Equipping the construction plant. Production value analysis. Work effectiveness studies. Prerequisite: Algebra.
- BCN 3254C BUILDING CONSTRUCTION DRAWING I (4)**  
 An introductory course in basic drafting and reading drawings. Use of 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 (3)**  
 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 (5)**  
 Principles and practices of surveying as it applies to building construction. Prerequisite: Trigonometry or equivalent.
- BCN 3402C MECHANICS OF MATERIALS (5)**  
 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 3611 CONSTRUCTION COST ESTIMATING (5)**  
 Principles and theories of estimating, classification 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 (5)**  
 Nature of construction costs, funding sources and arrangements, capital requirements, bonding, insurance, risk and contingency evaluation, general office operations, and bidding procedures. Prerequisite: BCN 3703, or equivalent.
- BCN 3703 MANAGEMENT OF CONSTRUCTION PROJECTS (5)**  
 Organization and management theory elements of leadership and human supervision, organization, office operations, labor relations, safety, and work improvement, as they relate to project field operations. Prerequisites: BCN 3720 and BCN 3762, or equivalents.

- BCN 3706 INTERDISCIPLINARY ASPECTS OF HOUSING** (3)  
 Recognition and definition of all factors which affect the planning, financing, and construction of housing projects. The operations and responsibilities of a multidisciplinary team dealing with the decision process. Prerequisite: consent of instructor.
- BCN 3720 CONSTRUCTION COSTS AND SCHEDULING** (5)  
 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 CONSTRUCTION** (3)  
 Legal and business aspects of engineering contracts and specifications in the construction industry. Analysis, study of precedents, and application of contract clauses, including changes, changed conditions, termination, disputes, payments, risk and insurance, inspection, liquidated damages, and technical requirements. Prerequisite: BCN 3762
- BCN 3761 SPECIFICATION WRITING** (5)  
 Study of 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** (5)  
 A study of codes required by local, county, and state levels. The writing and reading of specifications; bidding procedures; the relationships between contractors, engineers-architects, owners, subcontractors, and material suppliers. Prerequisite: ARC 3466, or equivalent.
- BCN 4221 ROAD CONSTRUCTION** (5)  
 A study of highway planning, 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** (5)  
 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** (5)  
 A general study of the methods of structural systems, such as beams, columns, rigid frames, arches, trusses, floors, enclosure systems, and various foundation 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** (3)  
 Discussions of basic concepts of systems analysis and systems approach to the field of housing planning. The advantage of systems approach. Case studies. Prerequisite: BCN 3706, or equivalent.
- BCN 4561C ENVIRONMENTAL CONTROL IN BUILDINGS** (5)  
 A study of concepts and systems for providing optimum thermal, lighting, plumbing, and acoustical conditions, in both commercial and residential buildings. Designed for majors in architecture, interior design, and construction management. Prerequisite: ARC 3466, or equivalent.
- BCN 4707 HOUSING AND ENVIRONMENT** (3)  
 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** (5)  
 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 safety and health hazards.
- BCN 4905 DIRECTED INDEPENDENT STUDIES** (1-5)  
 Specialized intensive study in an area of special interest to the student. Prerequisite: consent of instructor.
- BCN 4906 SPECIAL TOPICS** (1-5)  
 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** (3)  
 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** (5)  
 Principles of bi-dimensional design, drafting techniques. PERSpective and isometric drawing and introduction to architectural drawings. Prerequisite: consent of instructor.
- HHD 3151 HOUSING: SHELTER AND THE CONSUMER** (5)  
 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** (5)  
 Application of the elements, principles and introduction to the basic facets of architectural interiors and housing and its relationship to the environment. For non-interior design majors only.
- IND 3500 INTERIOR DESIGN** (5)  
 Integrated study of materials and business practices used in interior design. Emphasis on blueprint reading, technical terms, business procedures, estimates and quotations. Prerequisite: none.
- IND 4316 MEDIA & METHODS OF PRESENTATIONS** (5)  
 Applications of media and materials used in presentation of design concepts and programs to clients,

groups and organizations. Emphasis on various equipment and graphic techniques available, their application and use in simple and detailed communications. Prerequisite: none.

**IND 4221 INSTITUTION AND INDUSTRIAL INTERIORS (5)**

Analysis and synthesis of institutional functions, administrative controls, resources, constraints and policies in planning economic, behavioral and environmental parameters. Selections and design of selected furnishings and components. Prerequisite: IND 3500.

**IND 4224 EXHIBIT AND DISPLAY DESIGN (5)**

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 illumination. Prerequisite: none.

**LAA 3370C LANDSCAPE DESIGN I (5)**

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 (5)**

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*

**Robert W. Ellis, Jr.**, *Professor*

**Daniel Jackson**, *Professor*

**LeRoy Thompson**, *Professor*

**Jose Villate**, *Associate Professor*

**Manuel Cereijo**, *Associate Professor*

**Wunnava Subbarao**, *Associate Professor*

**David Barker**, *Associate Professor*

**Juan Villar**, *Assistant Professor*

**Robert Judge**, *Assistant Professor*

**Rene Leonard**, *Assistant Professor*

**Jimmy Hahs**, *Assistant Professor*

**Brett Klecka**, *Assistant Professor*

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 four-year 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:

		<i>Quarter Hours</i>	
<i>Core Courses (AA in Pre-Engineering)</i>			<b>22</b>
ETE 3034C	Introduction to Circuit Analysis	5	
ETE 3101	Introduction to Electronics	5	
ETE 3030L	Electronics Lab	2	
ETE 3142	Solid State Devices	5	
<i>Advised Elective</i>		5	
<i>Core Courses (AS in Electronic Technology)</i>			<b>20</b>
MAC 3411	Calculus I	5	
MAC 3412	Calculus II	5	
PHY 3040C	Physics	5	
PHY 3041C	Physics	5	
<i>Common Core Courses:</i>			<b>70</b>
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	
<i>Advised Elective</i>		5	
<i>Specialization</i>		15	

*Minimum Upper Division Required Hours* **90**

*Specialization:* 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 4170C	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

		<i>Quarter Hours</i>
<i>Major Requirements*:</i>		<b>80</b>
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 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:

**10**

**(Minimum) 90**

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 Systems, 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 upper 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 taking 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
<i>Major Requirements:</i>		<b>90</b>
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:

**14**

Minimum Upper Division Required Hours:

**90**

\*Typical specialization areas:

1. Heating, Ventilating & Air Conditioning Design Specialization (Professional Certificate)
 

ETM 4750	Air Cond. Design I	3
ETM 4752	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	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

## HEATING, VENTILATING, AND 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 Lab I	2
ETM 4642	Air Conditioning Design II	3
ETM 4643L	Mechanical Lab II	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 (5)

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 3650C COMPUTER HARDWARE FUNDAMENTALS (5)

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 (5)

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 (5)

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 (5)

Lecture/Lab — including hardware, organization, interfacing, system components, application, design and selection. System development and usage through software. Prerequisites: COP 3110 and ETE 3661.

### COOPERATIVE EDUCATION

#### DEFINITION OF PREFIX

ETG—Engineering Technology: General.

#### ETG 3949 COOPERATIVE EDUCATION TECHNOLOGY (5)

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 (5)

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.

- BCN 3521 ELECTRICAL SYSTEMS IN CONSTRUCTION (5)**  
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 (5)**  
The basic principles of AC and DC circuits, solid state devices, and fundamental 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 (2)**  
Introduction to laboratory equipment and techniques for pre-engineering students. Includes laboratory experiments on AC and DC circuits, electronic equipment and circuits, instrumentation such as meters, oscilloscopes, generators, etc. Corequisite: ETE 3101.
- ETE 3034C INTRODUCTION TO CIRCUIT ANALYSIS (5)**  
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 (5)**  
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 3034C or equivalent. Corequisite: ETE 3030.
- ETE 3121C ADVANCED CIRCUIT ANALYSIS (5)**  
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 transform and signal spectra are also covered. Prerequisite: ETE 3034C or equivalent. Corequisites: MAC 3412 and ETE 3101.
- ETE 3142 SOLID STATE DEVICES (5)**  
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 (5)**  
Basic concepts and application of linear systems, feedback systems, stability analysis, Bode plots and root-locus techniques. Prerequisite: ETE 3121C.
- ETE 3421C COMMUNICATION SYSTEMS (5)**  
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 3034C or equivalent.
- ETE 3422 TRANSMISSION SYSTEM FOR COMMUNICATION (5)**  
Terminology, definitions 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 (5)**  
Analysis of rotating electric machinery with emphasis on industrial applications (includes lab). Prerequisite: ETE 3565C.
- ETE 3565C INTRODUCTION TO ELECTRICAL POWER (5)**  
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. Transformers and transformer connections. Energy conversion. Power system loads and statistical load-forecasting. Calculation of cost of electrical energy. Prerequisite: ETE 3034C or equivalent.
- ETE 4123C ELECTRONIC CIRCUIT ANALYSIS (5)**  
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 4161C INTEGRATED CIRCUITS ANALYSIS AND APPLICATION (5)**  
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 (5)**  
Practical application of passive and active filters to communication and process control systems. Laboratory applications. Prerequisite: ETE 3121C.
- ETE 4324C PROCESS CONTROL INSTRUMENTATION (5)**  
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 (5)**  
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 systems. Prerequisite: ETE 3323C.
- ETE 4426C ADVANCED COMMUNICATION SYSTEMS (5)**  
Study of advanced communication systems and techniques. Emphasis is placed on the study of digital and FM systems. Phase-lock techniques, noise analysis, threshold data, and transmission are among the subjects extensively covered (includes lab). Prerequisite: ETE 3421.

- ETE 4565C ELECTRICAL POWER SYSTEMS I** (5)  
Power network concepts, AC & DC transmission power transmissions, power transmission lines, power network representations, basic network solutions, symmetrical fault studies, symmetrical components. Prerequisite: ETE 3565C.
- ETE 4567C ELECTRICAL POWER SYSTEMS II** (5)  
Unsymmetrical faults and loads, the bus impedance matrix solutions for fault studies. Control of voltage, watts, vars. Load flow, economic dispatch and system stability. Prerequisite: ETE 4565C.
- ETE 4665C DIGITAL PROCESS CONTROL SYSTEMS** (5)  
Study of digital process control systems. Time frequency 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** (1-5)  
Specialized intensive study in an area of special interest to the student. Consent of faculty instructor required.
- ETG 4930 SPECIAL TOPICS** (1-5)  
For a group of students who wish an intensive study of a topic not otherwise offered in the University. Consent of faculty 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 4590C STRUCTURAL DESIGN** (5)  
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** (5)  
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** (5)  
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** (5)  
The analysis and design of structural elements and connections for buildings, bridges and specialized structures utilizing structural steel. Both elastic and plastic designs are considered. Prerequisite: ETC 3412.
- ETC 3210L SOIL MECHANICS LABORATORY** (2)  
Laboratory experiments in identification, properties and behavior of soils. Prerequisite or corequisite: ETC 3220C.
- ETC 3220C SOIL MECHANICS AND FOUNDATIONS** (5)  
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** (5)  
Lecture/Lab—Computations and field procedures associated with measuring of distances and angles, using tape, level and transit. Laboratory included with field measurements. Prerequisite: Trigonometry.
- ETC 3322C ADVANCED SURVEYING** (5)  
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 field measurements, layouts and computations. Prerequisite: ETC 3321L or equivalent.
- ETC 3323C LAND SURVEYING** (5)  
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 professional registration. Prerequisite: ETC 3321L.
- ETC 3412 DETERMINATE STRUCTURAL ANALYSIS** (3)  
Analysis of statically determinate structural systems by analytical methods. Reactions; shear, axial and moment diagrams, truss analysis, influence lines; moving loads. Prerequisite: ETG 3530 or equivalent.
- ETC 3420 INDETERMINATE STRUCTURAL ANALYSIS** (5)  
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** (5)  
Use of soil mechanics and subsurface construction theory and practice for design and construction of

foundations for 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 (5)**  
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 (5)**  
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 (5)**  
The analysis and design of modern wood structures. Effect of plant origin and physical structure of wood on its mechanical strength; fasteners and their significance in design. Prerequisite: BCN 3402C or ETG 3530 or equivalent.
- ETC 4502 GEOMETRIC DESIGN OF HIGHWAYS (5)**  
Route surveys by ground and aerial methods-reconnaissance, preliminary and location surveys; geometric properties of highway surveys; spiral theory; design controls for both vertical and horizontal alignments. Applications of 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 (5)**  
Characteristics of traffic, 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 (5)**  
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 (5)**  
The behavior of steel and concrete under sustained load. Analysis and design of pre-tensioned and post-tensioned reinforced concrete members, and designing these members into the integral structure. Prerequisite: ETC 4450C.
- ETC 5507C ADVANCED GEOMETRIC DESIGN OF HIGHWAYS (5)**  
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 (5)**  
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 (3)**  
Study of forces acting on bodies, including coplanar and non-coplanar forces, concurrent and non-current forces, friction forces and hydrostatic forces. Prerequisites: Physics, Calculus.
- ETG 3520L MATERIALS TESTING LAB (2)**  
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 (3)**  
Axial, torsional, shear, bending and combined stress and strain analysis; mechanical properties and applications for static, dynamic, fatigue 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.

- ETC 3570 INTRODUCTION TO TRANSPORTATION SYSTEMS (5)**  
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 (5)**  
Principles of transportation planning; origin-destination studies; methodology used in generating transportation plans; techniques for predicting and evaluating the consequences of various alternatives; transportation planning for Dade County. Prerequisite: ETC 3570.
- ETC 5571 ADVANCED TRANSPORTATION SYSTEMS (5)**  
Examination of innovative transportation systems technology; technical feasibility; system attributes; energy requirements; marketability of proposed systems; probable effect on modal choice behavior; evaluation of possible applications in the Greater Miami area. Prerequisite: ETC 4560.
- ETC 5572 INTRODUCTION TO URBAN SYSTEMS MODELING (5)**  
Transportation modeling; systems view of the urban area; planning applications of modeling. Prerequisite: COP 3210, or consent of the instructor.

- ETC 5573 URBAN MASS TRANSIT PLANNING** (5)  
The mass transportation problems. Topics include: demand analysis and projection, marketing urban mass transit; existing urban mass transit systems in the U.S.; techniques for planning mass transit systems; governmental regulation and subsidies to the transportation sector. Prerequisite: ETC 5571.
- EVS 3215C APPLIED HYDRAULICS** (5)  
A course to provide background in basic hydraulic technology. The fundamental theorems are studied and then applied to the collection and distribution of water and the collection and treatment of wastewaters.
- EVS 3219C AQUATIC SYSTEMS** (5)  
Biological, chemical and physical aspects of freshwater lentic and lotic ecosystems. Emphasis is on the freshwater systems of South Florida.
- EVS 3264C WATER RESOURCES** (5)  
Study of the hydrologic cycle; ground and surface 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** (5)  
Technological aspects of ocean systems. Prerequisite: EVS 3219 or consent of instructor.
- EVS 3360 AIR RESOURCES** (5)  
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** (5)  
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** (5)  
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** (5)  
The effects of environmental pollutants on man's health and the quality of life.
- EVS 4233C UNIT OPERATIONS I** (5)  
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** (5)  
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** (5)  
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** (5)  
Principles of transportation planning; origin-destination studies; methodology used in generating transportation plans, techniques for predicting and evaluating the consequences of various alternatives; transportation planning for Dade County. Prerequisite: ETC 3570.
- EVS 4905 INDEPENDENT STUDY** (1-5)  
Individual research studies available to academically qualified students. Consent of instructor required.
- EVS 4930 SPECIAL TOPICS** (1-5)  
Study of specific aspects (of environmental technology or urban systems) not available through formal course study. Open to academically qualified students. Consent of instructor required.
- EVS 5218 ADVANCED HYDRAULICS** (5)  
An advanced course in hydraulics. Topics include open channel flows, spillways, stilling basins, energy-dissipating devices, rheology, and principles of fluidics. Prerequisite: EVS 3215, or consent of instructor.
- EVS 5235C WASTEWATER COLLECTION AND TREATMENT** (5)  
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** (5)  
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** (5)  
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** (5)  
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.
- EVS 5361 AIR SAMPLING AND ANALYSIS** (5)  
Practical laboratory work and theoretical aspects involved in a wide range of air sampling and analysis

systems. Critical comparison and examination of methods and instrumentation. Source testing, instrumental sensitivity, applicability and remote sensing systems. Prerequisite: EVS 3360 or EVR 4231.

**EVS 5362 AIR POLLUTION CONTROL (5)**

Air pollution control — devices, principles, efficiencies, costs. Gas scrubbers, electrostatic precipitators, thermal deposition, filters, condensers, after-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 (5)**

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 5421C INDUSTRIAL AND ENVIRONMENTAL TOXICOLOGY (5)**

Introduction to toxicological studies in the urban environment. Prerequisite: EVS 3601C, or consent of instructor.

**EVS 5425C VECTOR AND PEST CONTROL (5)**

Effects and management of public health vectors and communicable diseases. Prerequisite: EVS 3601C, or consent of instructor.

**EVS 5426C ADVANCED ENVIRONMENTAL INSTRUMENTATION (5)**

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 (5)**

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 (5)**

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 (1-5)**

Individual research studies available to academically qualified students on graduate status.

**EVS 5930 SPECIAL TOPICS (1-5)**

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 (5)**

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 (5)**

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 (5)**

A continuation of EVS 6051C including the reuse of treated wastewaters and of sludges. Prerequisite: EVS 6051C.

**EVS 6053C ADVANCED TREATMENT SYSTEMS (5)**

Integration of unit operations into advanced treatment systems for waters and wastewaters. Prerequisite: EVS 6052C.

**EVS 6054 AQUATIC RECLAMATION (5)**

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 (5)**

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 (5)**

An examination of alternative techniques useful for the analysis and evaluation of environmental impacts of man's activities. Prerequisite: URP 6821.

**EVS 6424 AIR-LAND INTERFACE STUDIES (5)**

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 (5)**

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 (10)**

**OCB 4702 AQUATIC PRODUCTS (5)**

Commercial products, already developed, which may be obtained from aquatic systems. Prerequisite: EVS 5268, or consent of instructor.

- OCB 6631 AIR-WATER INTERFACE STUDIES** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
The urban areas as a complex system; modeling the urban growth processes; statistical decision making games; modeling and simulation; cost 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** (5)  
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** (5)  
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** (5)  
A survey of plumbing, heating, air conditioning and ventilation systems for building (includes lab).
- ETG 3510 DYNAMICS** (5)  
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** (5)  
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** (5)  
A study of the development, transmission and utilization of power through fluid power circuits and controls (includes lab). Prerequisite: EVS 3215C, or equivalent.
- ETM 3510 MECHANICAL DESIGN I** (5)  
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** (5)  
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** (5)  
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 transfer (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  
and Acting Chairperson*

**Florence Ogle**, *Assistant Professor*

**Adele Smith**, *Assistant Professor*

**Penelope Storm**, *Assistant Professor*

**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.

UPPER DIVISION SPECIALTIES:

**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.

		<i>Quarter Hours</i>	
<i>Core Courses:</i>			<b>27</b>
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	
<i>Specialization:</i>			<b>49</b>
CHM 3030	Survey of General Chemistry and Lab	7	
CHM 3200	Survey of Organic Chemistry and Lab	7	
CTE 3310	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	
<i>Advised Elective</i>			<b>5</b>
<i>Career Traineeship</i>			
CTE 4880	Fashion Field Experience		<b>10</b>

**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.

		<i>Quarter Hours</i>	
<i>Core Courses:</i>			<b>32</b>
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	
<i>Specialization:</i>			<b>47</b>
COA 3130	Personal and Family Economics	5	
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 6645	Consumer Psychology	5	
SOP 6649	Experimental Consumer Psychology	7	
<i>Career Traineeship in Consumer Affairs</i>			<b>10</b>
<i>Elective</i>			<b>5</b>

## 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.

		<i>Quarter Hours</i>
<i>Core Courses:</i>		<b>24</b>
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	Nutrition: Infancy Thru Adolescence	4
<i>Specialization:</i>		<b>43</b>
CHD 3220	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		<b>20</b>
<i>Advised Electives</i>		<b>15</b>
Career Traineeship		<b>10</b>

## 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.

		<i>Quarter Hours</i>
<i>Core Courses:</i>		<b>25</b>
COA 3410	Consumer Resources	5
CTE 3312	Clothing and the Consumer	5
CTE 3401	Consumer Textiles	5
CTE 4602	Fashion and Culture	5
HME 4210	Personal and Career Management	5
<i>Specialization:</i>		<b>27</b>
COC 3300	Intro. to Computers and Computer Applications	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
<i>Related Business Courses:</i>		<b>25</b>
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
<i>Advised Elective</i>		<b>5</b>
Career Traineeship		
CTE 4880	Fashion Field Experience	<b>10</b>

## 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.

	<i>Quarter Hours</i>
<i>Core Courses:</i>	<b>28</b>
CHD 3220 Child Development: Infancy and Early Childhood	5
COA 3410 Consumer Resources	5
CTE 3312 Clothing and the Consumer	5
FAD 4230 Family Life Cycle	3
HME 4210 Personal and Career Management	5
HHD 4420 Home Furnishings and Equipment	5
<i>Specialization:</i>	<b>52</b>
CHM 3030 Survey of General Chemistry and Lab	7
CHM 3200 Survey of Organic Chemistry and Lab	7
Food and Nutrition Courses	38
Career Traineeship	<b>10</b>

## 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.

	<i>Quarter Hours</i>
<i>Specialization:</i>	<b>75</b>
Clothing and Textiles courses	15
Family and Child Development courses	15
Food and Nutrition courses	15
Housing courses	15
Consumer Management courses	15
<i>Advised Electives</i>	<b>15</b>

## COURSE DESCRIPTIONS

### CLOTHING AND TEXTILES

**DEFINITION OF PREFIX:**  
CTE—Clothing and Textiles

- CTE 3310 BASIC CLOTHING CONSTRUCTION (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
Study and application of the principles and techniques of creative "in store" and window displays. Field work included.
- CTE 4340 ADVANCED CLOTHING CONSTRUCTION (5)**  
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 (5)**  
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 (5)**  
Laboratory class, in which students will explore techniques for designing and constructing textile fabrics. Experiences will include macrame, batik, tie-dyeing, weaving, knitting, and crocheting. Course is designed for Home Economics and Art Education majors.
- CTE 4602 FASHION AND CULTURE (5)**  
Study of historical, social-psychological, and ethnic influences in fashion design. Includes analysis of current fashion influences.

- CTE 4741 PATTERN ALTERATIONS** (5)  
Pattern alteration stresses importance of pattern selection for individual figure types, and pattern alteration for special fitting 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** (5)  
Study of apparel industries, with supervised observation of various aspects of production and distribution.
- CTE 4821 QUANTITATIVE DECISIONS FOR FASHION RETAILING** (5)  
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 performance and establishing budgetary goals. Intended for students seeking opportunities in retail apparel organizations.
- CTE 4827 FASHION BUYING AND MERCHANDISING STRATEGIES** (5)  
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** (2)  
Exploration of local fashion-related career opportunities and proficiencies required for these positions. Guest speakers utilized.
- CTE 4905 INDEPENDENT STUDY** (1-5)  
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** (1-5)  
For groups of students who wish an intensive study of topics not otherwise offered in the University. Consent of faculty supervisor and department chairperson is required.
- CTE 5345 NEW TRENDS IN CLOTHING CONSTRUCTION** (5)  
A study of the latest techniques for sewing today's fabrics, including some factory methods. Prerequisite: CTE 4340, or equivalent.
- CTE 5355 TAILORING MENSWEAR** (5)  
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** (5)  
Exploration into recent developments in textile fibers and fabrics. Laboratory exercises in textile-testing procedures.
- CTE 5746 PATTERN DESIGN** (5)  
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** (1-5) (5)  
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** (5)  
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** (5)  
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 DEVELOPMENT** (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** (3)  
Emphasizes attitudes, feelings, communication, life styles in varying interpersonal relationships.
- FAD 4230 THE FAMILY LIFE CYCLE** (3)  
Study of the characteristics, problems, potentials and adjustments unique to the various stages of the family life cycle, including ethnic and cultural influences on family life patterns.
- FAD 4940 HUMAN DEVELOPMENT PRACTICUM** (3-5)  
Experience in observing and working with individuals, in one or more phases of the human life cycle. Students may select a day care center, public school, nursing home, hospital or other community service agency. Prerequisites: CHD 3220, 4230, FAD 4230, or equivalent.

- FAD 5255 PARENT-CHILD INTERACTION IN VARYING ENVIRONMENTS** (5)  
The effects of varying environments on members of households, interpersonal relationships, family values, life style, and interaction between members.
- FAD 5260 FAMILY DEVELOPMENT** (5)  
The dynamics of family interaction and structure, including analysis of socioeconomic and cultural influences, crisis-producing situations, and current issues and trends affecting the family unit.
- FAD 5450 WORKSHOP IN FAMILY AND CHILD DEVELOPMENT** (1-5)  
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** (2-5)  
Individually selected program of supervised study in a specific area of Family 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 co-op Program with consent of advisor. Evaluation and report required.
- HOE 4940 CAREER TRAINEESHIP IN HOME ECONOMICS** (5-15)  
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** (5)  
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** (5)  
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** (5)  
Application of 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** (5)  
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** (5)  
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** (5)  
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** (5)  
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** (5)  
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.

- HME 5225 PROBLEMS OF HOME MANAGEMENT IN CONTEMPORARY SOCIETY (5)**  
Influence of diversified cultural impact on management life styles, with emphasis on problems of management 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.
- HME 5250/EEX 5771 INDEPENDENT LIVING FOR THE HANDICAPPED (5)**  
Explores the special home and personal living skills required in order for persons with mental and physical limitations to achieve their maximum independence. Suitable for students in psycho-educational services, health, physical education and recreation, social work, home economics or anyone planning to work with the elderly or handicapped. Approved for certification for teachers of the mentally retarded.
- HME 5450 WORKSHOP IN HOME MANAGEMENT AND FAMILY ECONOMICS (1-5)**  
Short term study of special facets, issues and trends of home management and family economics.
- HME 5905 INDEPENDENT STUDY IN HOME MANAGEMENT AND FAMILY ECONOMICS (3-5)**  
Individually selected program of supervised study in a specific area of home management or family economics. Prerequisite: Permission of instructor.

## INDUSTRIAL SYSTEMS DEPARTMENT

**Gabriel G. Aurioles**, *Associate Professor and Chairperson*  
**James E. Couch**, *Associate Professor*  
**Sybil de Groot**, *Associate Professor*  
**Jesse R. Fairbanks**, *Associate Professor*  
**Donald F. Wallace**, *Associate Professor*

**Judy R. Ellis**, *Assistant Professor*  
**Neil M. Hout-Cooper**, *Assistant Professor*  
**John R. Krobock**, *Assistant Professor*  
**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 enterprises.

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

Aviation	Aviation (Pilot)
Industrial Systems	Air Traffic Control
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.

*Major Requirements and Electives*

*Quarter Hours  
90 (minimum)*

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

### 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 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.

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	Health Hazards in Industry	5
HES 4432	Safety Management	5
ETI 4632	Personnel 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	Personnel Relations	5
ETI 4905	Independent Study (Field Project)	5

*Elective: (Any 2)*

ETI 4635	Administration of Labor Organizations	5
ETI 4634	Labor and Industrial Dispute Resolution	5
ETI 3700	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; Drafting; JOU—Journalism; MAN—Management; MMC—Mass Media Communication; PUR—Public Relations; RTV—Radio-Television; VIC—Visual Communication.

### ETD 3020 TECHNICAL COMMUNICATIONS

(3)

The goal of 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 different student backgrounds. Basic graphical methods including multiview and isometric drawings; flow diagrams; charts, graphs and diagrams; graphical presentation of data; use of resource materials in the library; and standards for written reports are discussed.

### JOU 3100 NEWS REPORTING

(5)

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

(5)

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

(5)

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 features.

### JOU 3202 ADVANCED EDITING AND GRAPHICS USE

(5)

Study of 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

(5)

The fact 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

(5)

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

(5)

To teach the student how to cover government activities for newspapers, television, and radio. Aspects of the budget office, 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

(5)

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

(5)

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

(5)

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

(5)

A course suitable for students of management in all areas 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

(5)

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 of instructor.

### PUR 4934 PUBLIC RELATIONS SEMINAR

(5)

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, 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 (5)**

Practical assignments in the writing of news for radio and television. Will include gathering, processing and final preparation of scripts. Emphasis will be on skills development. A brief study of libel, invasion of privacy, fairness doctrine and equal time will be included. Prerequisites: JOU 3100, JOU 3109, or equivalents.

**RTV 4205 COMMUNICATIONS TECHNOLOGY PRACTICUM (5)**

Practice in communications technology activities learned during attendance in Communications Technology VIC 4300. Implementation of television studio production activities.

**VIC 4300 COMMUNICATIONS TECHNOLOGY (5)**

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.: Drafting; ETE—Engineering Tech.: Electrical; ETG—Engineering Tech.: Mechanical; ETI—Engineering Tech.: Industrial; ETM—Engineering Tech.: Mechanical; HES—Health, Education & Safety; OTH—Occupational Therapy; STA—Statistics

**ARV 3210 REPROGRAPHICS (5)**

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 (5)**

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 (5)**

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 (5)**

Laboratory experiences of basic production, management and personnel practices as they relate to construction systems and projects.

**BCN 3730 CONSTRUCTION SAFETY (5)**

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 Safety and Health Act.

**BCN 4033 INDUSTRIAL RESEARCH AND DEVELOPMENT (5)**

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 (5)**

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 (5)**

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 (5)**

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 (5)**

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 (1-5)**

For a group of students who wish intensive study of a topic not otherwise offered in the University. Consent of faculty supervisor and department chairperson required.

- ETI 3110 QUALITY CONTROL (5)**  
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 3417C MANUFACTURING TECHNOLOGY (5)**  
Laboratory experiences of basic manufacturing, management, personnel, and production practices as they relate to products and processes. Safety procedures.
- ETI 3444 AUTOMATION (5)**  
A study of the technology of automation including the economics of management policies for the major industrial changes influencing automation planning.
- ETI 3645 PRODUCTION PLANNING AND CONTROL I (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
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 (5)**  
Introduces occupational safety 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 (5)**  
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 (5)**  
A study of the maintenance function in the industrial setting, including the planning and implementation of preventative maintenance techniques.
- ETI 4603 METHOD IMPROVEMENT (5)**  
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 (5)**  
Basic industrial research techniques, operational production problems, matrix applications, inventory control, network analysis. Prerequisites: STA 3161 (or equivalent), MAS 3103.
- ETI 4620 VALUE ANALYSIS (5)**  
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 (5)**  
A study of the functions 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 (5)**  
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 (5)**  
Theory and practice of dispute resolution in industry arbitration processes, grievances, mediation, factfinding and conciliation. Arbitration of industrial claims and disputes, commercial arbitration. Prerequisite: ETI 4633, or equivalent.
- ETI 4635 ADMINISTRATION OF LABOR ORGANIZATIONS (5)**  
Administration of labor organizations; labor policies and practices; legal requirements and financial administration of unions. Prerequisite: ETI 4633 or equivalent.
- ETI 4650 INDUSTRIAL INFORMATION SYSTEMS (5)**  
Introduction to systems concepts. Planning design and implementation of information systems, decision-making with systems, and system organization. Prerequisite: COP 3170 or COP 3110, or equivalent.
- ETI 4660 MATERIALS HANDLING (5)**  
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 organization.

- ETI 4671 ENGINEERING ECONOMY (5)**  
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 differences 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 (5)**  
Overview of the supervisor's functions, responsibility, and over-all role in management in industry.
- ETI 4683 HUMAN FACTORS ENGINEERING (5)**  
Examination of the ways to fit jobs and objects better to the nature and capacity of the human being. Lectures will review man's performance capability, singly and in groups, in interacting with his work environment. Stresses the practical application of human factors principles.
- ETI 4690 INDUSTRIAL SALES (5)**  
Fundamentals of technical sales. Analysis of buyer's needs. Experiments, trial runs and demonstrations. The sale of machinery, raw materials and technical services. Credit and financing considerations. Measures of performance. Case studies.
- ETI 4691 WOMEN IN INDUSTRY (5)**  
Development of supervisory and technical skills for women in industrial operations. Practice in planning, 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 (5)**  
A continuation of Safety in Industry. An introduction to OSHA regulations on health hazards. Noise, radiation, 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 (1-5)**  
Specialized intensive study in an area of special interest to the student. Consent of faculty instructor required.
- ETM 4407 MECHANICAL POWER SYSTEMS I (5)**  
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 (5)**  
Advanced laboratory experiences with reciprocating engines. Introductory study of turbine, diesel, and rotary engines. Introductory study of aircraft structures and basic aero dynamics. Prerequisite: ETM 4407, or equivalent.
- ETM 4823C MATERIALS OF INDUSTRY (5)**  
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, fabrics, ceramics and synthetics.
- HES 4432 SAFETY MANAGEMENT (5)**  
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 safety. Motivation. Products safety. Case studies. Prerequisites: BCN 3730 and ETI 4708, or equivalent.
- OTH 3123 TECHNOLOGY FOR OCCUPATIONAL THERAPY (5)**  
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

## 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, 3210C

AFR 4220, 4230C

*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** (3) (F)  
Professionalism; responsibilities; 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** (3)  
Applied tactics; principles and fundamentals of tactical operations. Advanced leadership.
- MIS 4120 ADVANCED MILITARY SCIENCE IV** (3)  
World power relationships; world change and military implications. Applied leadership. Military administration and justice.
- MIS 4410 ADVANCED MILITARY SCIENCE IV** (3)  
Theory and dynamics of the military team. Applied leadership.



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 GIBERSON, PHILIP, JR., M.A. (Memphis State University), Associate Professor,  
 Performing Arts  
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 GOLDBERG, WALTER, Ph.D. (University of Miami), Associate Professor, Biological Sciences

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- MAINGOT, ANTHONY, Ph.D. (University of Florida), Associate Professor, Sociology and Anthropology
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MAU, JAMES, Ph.D. (University of California at Los Angeles), Dean and Professor, Sociology and Anthropology

MAURRASSE, FLORENTIN, Ph.D. (Columbia University), Associate Professor, Physical Sciences

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McELFRESH, CLAIR, D.M.A. (Case Western Reserve University), Professor, Performing Arts and Director, Faculty Scholars Program

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MURISON, GERALD, Ph.D. (Johns Hopkins University), Associate Professor, Biological Sciences

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OLANDER, JOSEPH, Ph.D. (Indiana University), Executive Vice President, Associate Professor, Sociology and Anthropology

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PARKER, JANAT, Ph.D. (University of California, Berkeley), Associate Dean and Associate Professor, Psychology

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PETERSON, BRIAN, Ph.D. (University of Wisconsin), Director, Liberal Studies Program and Associate Professor, History

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ROMANELLI, RALPH, Ph.D. (University of Virginia), Assistant Professor, Mathematical Sciences

ROSENBERG, MARK, Ph.D. (University of Pittsburgh), Director, Caribbean-Latin American Studies Certificate Program and Assistant Professor, Political Science

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 SHAPIRO, SAMUEL, Ph.D. (Rutgers University), Chairperson and Associate Professor, Mathematical Sciences  
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- PARK, MYUNG, Ph.D. (University of Southern California), Associate Professor, Public Administration
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- RODRIGUEZ, LEONARDO, D.B.A. (Florida State University), Assistant Professor, Management and Accounting
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- SALZER, WILLARD M., M.A. (University of Colorado of Boulder), Associate Professor Marketing, Environment & International Business
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- SMITH, LARRY A., Ph.D. (State University of New York), Associate Professor, Management
- SUTIJA, GEORGE, M.B.A. (Columbia University), Associate Professor, Public Administration and Associate Dean, School of Business and Organizational Sciences
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- THOMAS, ROBERT J., M.B.A. (University of Miami), Assistant Professor, Marketing, Environment & International Business
- TURBAN, EFRAIM, Ph.D. (University of California at Berkeley), Professor, Management
- VALENZI, ENZO R., Ph.D. (Bowling Green University), Associate Professor, Management
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- WARTICK, STEVEN L., M.P.A. (University of Missouri at Kansas City), Assistant Professor, Marketing, Environment & International Business
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Vocational & Adult Education .....	Dominic A. Mohamed

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- CHADWICK, IDA F., Ph.D. (Florida State University), Assistant Professor, Health, Physical Education and Recreation
- CHEYNEY, WENDY, Ed.D. (University of Miami), Associate Professor, Psycho-Educational Services
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- DIVITA, CHARLES, JR., Ph.D. (Florida State University), Associate Professor, Adult Education
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- FARRELL, ROBERT V., Ph.D. (Teachers College, Columbia University), Associate Professor, General Professional Education
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- GAVILAN, MARISAL, Ed.D. (University of Tennessee), Associate Professor, Psycho-Educational Services
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- GOERKE, GLENN A., Ph.D. (Michigan State University), Professor, Adult Education
- GREENBERG, BARRY, Ph.D. (New York University), Director Academic Services and Program Evaluation, North Miami Campus; Assistant Professor, General Professional Education
- GURUCHARRI, KATHLEEN A., Ph.D. (University of Miami), Associate Professor, Childhood Education
- HAUENSTEIN, A. DEAN, Ph.D. (Ohio State University), Professor, Vocational Education
- JENKINS, WILLIAM A., Ph.D. (University of Illinois), Professor, Childhood Education
- KAMPSNIDER, JOHN J., Ph.D. (University of Utah), Associate Professor, General Professional Education
- KENNEDY, DANIEL A., Ed.D. (University of Oregon), Associate Professor, Psycho-Educational Services
- KOORLAND, MARK A., Ph.D. (University of Florida), Assistant Professor, Psycho-Educational Services
- KOSSACK, SHARON W., Ph.D. (University of Georgia), Assistant Professor, Childhood Education
- LLEWELLYN, JACK H., Ph.D. (Florida State University), Associate Professor, Health, Physical Education and Recreation
- LOPEZ, RICHARD, Ed.D. (Florida Atlantic University), Assistant Professor, Health, Physical Education and Recreation

- LUCKY, LURETHA, Ed.D. (Arizona State University), Assistant Professor, Psycho-Educational Services
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- MARTINEZ, LUIS A., Ph.D. (Florida State University), Associate Professor, Science Education
- MASON, SANDRA L., M.A. (Glassboro College), Instructor, Psycho-Educational Services
- MATHEWSON, GROVER, Ph.D. (University of California at Berkeley), Assistant Professor, Childhood Education
- MENDOZA, ALICIA Ed.D. (University of Miami), Assistant Professor, Childhood Education
- MOHAMED, DOMINIC A., Ph.D. (University of Minnesota), Chairperson and Associate Professor, Vocational Education
- MORRISON, GEORGE S., Ed.D. (University of Pittsburgh), Chairperson and Professor, Childhood Education
- MUSGRAVE, SHIRLEY H., Ph.D. (Florida State University), Associate Professor, Art Education
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- OLIVA, PETER F., Ed.D. (Teachers College, Columbia University), Professor, General Professional Education and Educational Administration
- PEARSON, GEORGE B., Ed.D. (University of Oregon), Chairperson and Professor, Health, Physical Education and Recreation
- PELL, SARAH W. J., Ed.D. (Duke University), Associate Professor, General Professional Education
- PENNINGTON, CLEMENT, Ed.D. (Pennsylvania State University), Assistant Professor, Art Education
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- PRYOR, ROBERT O., Ph.D. (Florida State University), Assistant Professor, Vocational Education
- REICHBACH, EDWARD M., Ed.D. (Wayne State University), Associate Professor, Childhood Education
- REMBERT, EMMA W., Ed.D. (Syracuse University), Associate Professor, Childhood Education
- ROSENBERG, HOWARD, Ed.D. (Teachers College, Columbia University), Assistant Professor, Psycho-Educational Services
- RYAN, COLLEEN A., Ph.D. (Ohio State University), Associate Professor, Psycho-Educational Services
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- TESTA, ROBERT F., Ph.D. (University of Miami), Assistant Professor, Music Education
- TOOMER, JETHRO, Ph.D. (Temple University), Associate Professor, Psycho-Educational Services
- TUCKER, JAN L., Ph.D. (Indiana University), Professor, Social Studies Education

VANOVER, GEORGE W., Ed.D. (University of Tennessee), Associate Professor,  
 Vocational Education  
 VIGILANTE, NICHOLAS J., Ph.D. (Ohio State University), Professor, Childhood Education  
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 Education  
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 Education  
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 and Assistant Professor, Health, Physical Education and Recreation

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 Social Work

HAMERSLEY, BRUCE M., M.S. (University of Miami), Associate Professor, Criminal Justice  
 HIGGINS, TERRY W., M.S., R.P.T. (Medical College of Virginia), Assistant Professor, Physical Therapy  
 HIMBURG, SUSAN P., M.M.Sc., R.D. (Emory University), System Leader, Comprehensive Dietetic Education System, Dietetics and Nutrition  
 HOGGES, RALPH, Ed.D. (Nova University), Lecturer, School of Health and Social Services  
 JOHNSON, CHARLES L., Ph.D. (Sam Houston State University), Associate Professor, Criminal Justice  
 JONES, ROSA L., M.S.W., A.C.S.W. (Florida State University), Associate Professor and Director of Field Instruction, Social Work  
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 KAHN, ABDUR RASHEED, Ph.D., R.D. (Kansas State University), Assistant Professor Dietetics and Nutrition  
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MING, LESLIE, M.A.L.S. (Florida State University), Collection Development Librarian, FIU at North Miami, Library

MISKOVIC, LINDA S., M.A. (Western Illinois University), Coordinator of Womens Sports and Womens' Volleyball Coach

NEWMAN, JOHN, B.B.A. (Western Michigan University), Director, Financial Aid

NUTTALL, WILLIAM W., M.S. (Florida International University) Head Soccer Coach, Coordinator of Recreational Sports

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RODRIGUEZ, JOSEFINA H., M.L.S. (Emory University), Documents Librarian, Library

RODRIGUEZ, ROBERT D., M.S.L.S. (Florida State University), Assistant Catalog Librarian

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TRIPP, MARGARET S., M.S.L.S. (Emory University), Assistant Reference Librarian, Library

WALESH, SIDNEY L., M.B.A. (University of Wisconsin), Director of University Budget Office

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WONDERLING, THOMAS H., Ed.S. (Bowling Green State University), Director, Athletics

YOUNG, BETTY BIGBY, M.S. (Brooklyn College), Director of University Relations—University Relations

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<b>A</b>		Definition of .....	10
Academic Advising (see academic programs)		Emergency Medical Services .....	11, 215
Academic Affairs, Division of .....	84, 371	Ethnic Studies Certificate .....	11, 190
Academic Calendar (inside front and back cover)		Heating, Ventilating and Air Conditioning Design .....	12, 349
Academic Degrees .....	8	Industrial Safety .....	12, 363
Academic Majors .....	6	Insurance .....	12, 215
Bachelors Degrees .....	6	Jewish Studies .....	11, 190
Masters Degrees .....	7	Latin American Studies .....	11, 186
Academic Programs — see titles		Linguistic Studies .....	12, 191
Academic Regulations .....	16	Management Information Systems .....	12, 215
Academic Warning, Probation and Dismissal .....	22	Marketing .....	12, 216
Acceleration, academic .....	19	Personnel Administration .....	12, 216
Accounting .....		Real Estate and Regional Development .....	13, 217
Graduate .....	209	Transportation Management .....	13, 217
Undergraduate .....	197	Certification, (Teacher) Programs .....	242
Accreditation, academic .....	5	Chemistry .....	146
Administration .....		Chemistry Education .....	265
Elementary .....	245	Childhood Education .....	250
Secondary .....	245	Civil Engineering Technology .....	346
Administration and Supervision .....		Class Attendance .....	17
Adult Education .....	246	Class Loads .....	17
Administration and Supervision, Vocational Education .....	287	Clothing and Textile .....	357
Administrative Affairs, Division of .....	34, 385	College Level Examination Program .....	19
Administrative Personnel .....	371, 385	Common Course Numbering .....	45
Admission .....		Comparative Studies .....	11, 190
Bachelors Programs .....	13	Computer Science .....	116
College of Arts and Sciences .....	84	Computer Services .....	43
International Students .....	22	Consortium Career Planning and Placement Services .....	33
Masters Programs .....	14	Consortium Library Privileges .....	42
Procedures, general .....	14	Consortium Media Privileges .....	43
Readmission .....	21	Consortium Student Activities .....	30
School of Business and Organizational Sciences .....	193, 204	Construction .....	338
School of Education .....	243	Construction Engineering Technology .....	339
School of Health and Social Sciences .....	292	Construction Management .....	340
School of Hospitality Management .....	324	Consumer Affairs Institute .....	38
School of Technology .....	335	Continuing Education and Special Programs .....	9, 37
Adult Education .....	246	Cooperative Education .....	
Alumni Affairs .....	40	School of Technology .....	334
Anthropology .....	84	Student Services .....	33
Application .....		Counseling Services .....	32
Graduation .....	20	Counselor Education .....	258
School of Business and Organizational Sciences .....	193	Courses .....	
University, for Admission .....	15	Adding .....	20
Architectural Technology .....	338	Dropping .....	20
Art .....		Loads .....	17
Performing .....	133	Repeated .....	20
Visual .....	183	See Academic Program titles	
Art Education .....	263, 271	CPA Requirements .....	198, 210
Arts and Sciences, College of .....	84	Credit .....	
Faculty .....	372	By Examination .....	19
Athletics .....		Definition .....	18
Club Sports .....	29	Departmental Credit by Examination .....	19
Intercollegiate .....	29	For Life Work Experience .....	19, 39
Intramural .....	29	Criminalistics-Chemistry Program .....	295
Recreation Activities .....	30	Criminal Justice Program .....	
Auxiliaries .....	34	Undergraduate .....	293
		Graduate .....	297
		Cuban Studies .....	11, 190
<b>B</b>		<b>D</b>	
Biological Sciences .....	89	Data Center .....	43
Biology Education .....	264	Dean's List .....	21
Black Studies .....	11, 190	Degree Requirements .....	
Boards and Officials .....	370	Bachelors .....	16
Building Program, University .....	3	Masters .....	16
Business Administration (MBA) .....	206	School of Business and Organizational Sciences .....	193, 205
Business and Organizational Sciences .....		School of Technology .....	334, 337
Bachelors Programs .....	193	Degrees, academic .....	8
Masters Programs .....	204	Degrees, two .....	18
School of .....	193	Development, Office of .....	40
Faculty .....	376	Diagnostic Teaching .....	257
		Dietetics and Nutrition .....	291, 299
		Bachelors Program .....	300
		General .....	300
		Masters Program .....	301
		Dietetics, Therapeutic and Community .....	301
		Dietetic Management .....	302
		Dismissal .....	22
<b>C</b>		<b>E</b>	
Campus Ministry .....	32	Earley Childhood Education .....	252
Campuses, University .....	3	Earth Sciences .....	151
Career Development and Placement .....	33	Economics .....	94
Certificate Programs .....			
Banking .....	10, 214		
Black Studies .....	11, 186		
Caribbean Studies .....	11, 186		
Comparative Studies .....	11, 190		
Consumer Affairs .....	11, 189		

Education, School of	242
Faculty	378
Elder's Institute	38
Electives, Definition of	18
Electrical Engineering Technology	344
Elementary Education	251
Engineering Technology	344
English	98
English Education	266, 271
Environmental and Urban Problems	
Joint Center	36
Environmental and Urban Systems	103, 337
Environmental Studies	101, 157
Ethnic Studies Certificate	11
Examination, final	20
External Degree	
Program	9, 39
School of Technology	335

## F

Faculty, Personnel	371
Faculty Scholars Program	38
Family and Child Development	358
Fashion Merchandising	356
Fees	24
Finance	
Undergraduate	199
Graduate	211
Financial Aid	28
Florida Board of Regents	370
Florida International University	
North Miami	3, 4, 8
Food and Nutrition	358
Food Service	33

## G

General Education Requirements	16
General Hospitality Management	325
General Information	3
General Professional Education	244
Goals of the University	3
Governance	31
Grades	
Changes	22
Correction	22
CR/NC Option	22
Reports	22
Grading System	21
Graduate Study	
Admissions	14
Application	15
Programs — see College and Schools	
Graduation	
Application for	20

## H

Handicapped Students	32
Health and Social Services, School of	291
Faculty	381
Health Education	275, 277
Health, Physical Education and Recreation	275
Health Science	291, 305
Education	306
General Studies	306
Management	305
Medical Records Administration	306
History	105
History Education	267
History of the University	3
Home Economics	281, 356, 359
Family and Child Development	358
Food and Nutrition	358
General and Consumer Management	359
Vocational Home Economics	
Education	281, 286
Honors, Academic	21
Hospitality Management, School of	324
Faculty	383
Hotel and Food Service Management	328
Hotel and Motel Management	326
Housing and Transportation	31
Humanities	109

Industrial Arts Education	282, 287
Industrial Arts Systems	362
Industrial Technology	362
Information Services	40
Interior Design	340
Institute for Women	38
Institutional Research	43
Insurance (Academic Program)	200
Intercollegiate Athletics and	
Recreational Sports	29
International Affairs Center	41
International Business	
Undergraduate	200
Graduate	207
International Hotel Management	327
International Institute for	
Creative Communication	38
International Management Auditing Unit	34
International Relations	110
International Students	
Admission Procedures	22
Admission Standards	22
International Student Services	32

## J

Jewish Studies Certificate Program	11, 190
------------------------------------	---------

## L

Labor Research and Studies	37
Latin American Studies Certificate	
Program	11, 186
Learning Skills Development	33
Legal Services	35
Liberal Studies	113
Libraries	42, 372
Linguistic Studies Certificate	12, 191

## M

Majors (academic), Change of	18
Two (Dual)	18
Management	
Bachelors Program	201
Masters Program	209
Management and Consumer Affairs	357
Management Information Systems	
Certificate Program	12, 215
Marine Officer Programs	368
Marketing	202
Mathematical Education	267, 271
Mathematical Sciences	117
Mechanical Engineering Technology	347
Media Center	42
Medical Technology	291, 310
Minor (Academic)	18
Minority Affairs and Women's Concerns	43
Modern Language	124
Modern Language Education	268
Music	133
Music Education	264, 272

## N

Nursing	291, 313
---------	----------

## O

Occupational Therapy	292, 315
Orientation	33

## P

Parks and Recreation Administration	277, 278
Performing Arts	133
Personnel Administration Certificate	
Program	12, 216
Philosophy	139
Physical Education	276, 278
Physical Planning	35
Physical Plant Operations	35
Physical Sciences	146
Physical Therapy	292, 317

Physics	158
Physics Education	269
Political Science	161
Post-Secondary Technical Education	283
Premedical Advisement	20
Probation	22
Program and Course Regulations	18
Psycho-Educational Services	255
Graduate	256
Undergraduate	255
Psychology	168
School	259
Public Administration	
Bachelors Program	195
Masters Program	208
Publications	
Student	30
University Relations	40

## R

Reading	252
Readmission	21
Real Estate	
Undergraduate	203
Graduate	213
Real Estate and Regional Development	13
Certificate Program	217
Records, Student	17
Refund of Fees	25
Registration	15
Religious Studies	139
Residency Requirements, Academic	25
Restaurant and Food Service	326
ROTC	
Air Force	368
Army	368

## S

Scholarships	28
School and College Relations	33
School of Psychology	259
Science Education	272
Secondary Education	262
Bachelors Program	262
Masters Program	270
Social Studies Education	270, 272
Social Work	292, 320
Sociology	178
Southeast Florida Education Consortium	5
See Consortium	
Special Students	
Non-degree Seeking	15
Sponsored Research and Training, Division of	43
Staff Personnel	371
State Board of Education	370
State University External Degree Program	9, 39
Statewide Course Numbering	
Definition of Prefixes	48
Cross Reference Tables	
FIU to Statewide	52
Statewide to FIU	68
Logic	45

Statistics	115
Student Accounts, Past Due	25
Student Activities and Organizations	30
Student Affairs, Division of	27, 385
Student Classifications	25
Course Loads	17
Residency Requirements	25
Tuition	25
Student Government	31
Student Health Care	31
Student Orientation	33
Student Records	17
Student Teaching and Lab Experiences	
Childhood Education	250
Secondary Education	263

## T

Technical Education	283, 286
Technology, School of	334
Department Majors	336
Program of Studies	335
Faculty	384
Theater	137
Transfer Credit	19
Business and Organizational Sciences	194
(See other academic programs)	
Transportation Management	203
Travel and Tourism Management	328
Traveling Scholars Program	20

## U

University Budget Office	35
University Controller	35
University House	30
University Officials	370
University Outreach	9, 37
University Personnel Services	36
University Public Safety	34
University Purchasing Services	36
University Relations	40
Urban Problems	36

## V

Veteran's Programs and Services	29
Visual Arts	183
Vocational Education	
Bachelors Programs	281
Vocational Home Economics Education	281, 286
Vocational Industrial Education	284, 286
Vocational Teacher Certification	285

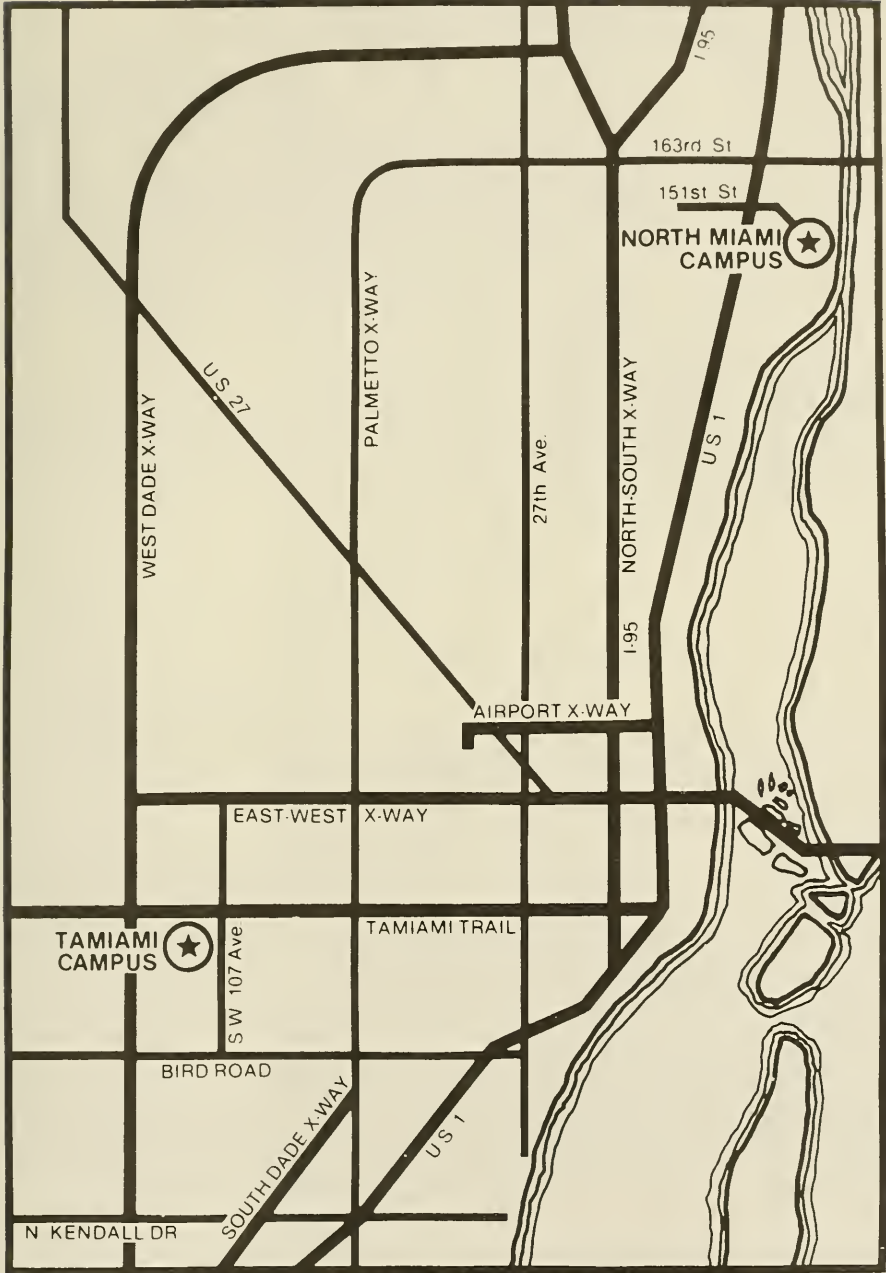
## W

Withdrawal from University	21
Women,	
Institute	38
Minority Affairs	43

Florida International University believes in equal opportunity practices which conform to all laws against discrimination and is committed to non-discrimination with respect to race, color, creed, age, handicap, sex, or national origin. Additionally, the University is committed to the principle of taking the positive steps necessary to achieve the equalization of educational and employment opportunities.

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# FLORIDA INTERNATIONAL UNIVERSITY



Area Map

CALENDAR 1978

JULY						
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2	3	4	5	6	7	8
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CALENDAR 1979

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# 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 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
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

March 26 .....	Last Day for Receipt of Applications for Foreign Students Applying From out of the Country for Admission to Summer Quarter
May 29 .....	Last Day for Receipt of Applications for Regular Admission to Summer Quarter
June 18 .....	Registration for New and Special Students
June 19 .....	Classes Begin
June 25 .....	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
July 4 .....	Independence Day Holiday (University Closed)
July 9 .....	Last Day to Apply for Summer Quarter Graduation
July 16 .....	Last Day to Pay Fees to Avoid Cancellation of Enrollment
July 30 .....	Last Day to Drop a Course With a Grade of DR Last Day to Withdraw from the University With WI Grade
July 30-August 3 .....	Official Registration Period for the Fall Quarter
August 6 .....	Last Day to Reinstate Cancelled Enrollments (\$25.00 Reinstatement Fee)
August 24 .....	Classes End
August 28 .....	All Grades Due in Records Office by 12:00 Noon

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