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Florida International University

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## Florida International University



# ACADEMIC CALENDAR 1981-82 FLORIDA INTERNATIONAL UNIVERSITY 

## FALL SEMESTER 1981

Hay 26 Last day for Receipt of Admissions Application for Intemational Students Applying to the Fall Term
July 20-24
July 27-August 19
August 3
Official Registration Week (Degree-Seeking Students) for the Fall Term
Open Registration for Fall Term
Last Day for Receipt of Applications (Including Appropriate Credentials) for Regular Admissions to Fall Semester
August 24
August 26
September 1

September 7
September 15
September 29
November 11
Registration Day
Classes Begin
Last Day to Complete Late Registration
Drop/Add Period Ends
Last Day to Drop Courses or Withdraw from the University without Incurring a Financial Liability*
Last Day to Pay Fees without a $\$ 50.00$ Late Fee
Last Day to Pay Fees to Avoid Cancellation of Enrollment
Labor Day Holiday (University Closed)
Last Day to Apply for Fall Term Graduation
Last Day to Drop a Course with a Grade of DR
Last Day to Withdraw from the University with a WI Grade
Veterans Day Holiday (University Closed)
Official Registration Week (Degree-Seeking Students) for Spring Term
Open Registration for Spring Term
Thanksgiving Holiday (University Closed)
Classes End
Official Examination Period
Christmas Holiday (University Closed)
November 16-20
Nov: 23-Dec. 18
November 26-27
December 8
December 9-15
December 25

## SPRING SEMESTER 1982

October 5 Last Day for Receipt of Admissions Application for International Students Applying to the Spring Term
November 16-20
Official Registration Week (Degree-Seeking Students) for the Spring Term
Nov. 23-Dec. 18
December 7
Open Registration for Spring Term
Last Day for Receipt of Applications (Including Appropriate Credentials) for Regular Admissions to Spring
Term
January 1 New Year Holiday (University Closed)
January 4 Registration Day
January $6 \quad$ Classes Begin
January 12 Last Day to Complete Late Registration
Drop/Add Period Ends
Last Day to Drop Courses or Withdraw from the University Without Incurring a Financial Liability*
Last Day to Pay Fees Without a $\$ 50.00$ Late Fee
Last Day to Pay Fees to Aroid Cancellation of Enrollment
January 26
Deadline to Apply for Spring Term Graduation
February' 9
April 5-9 Official Registration Week (Degree-Seeking Students) of the Summer Term
April 12-May 5 Open Registration for Summer Term
April 16 Classes End
April 19-23 Official Examination Period

#  <br> <br> 1981-82 Catalog 

 <br> <br> 1981-82 Catalog}
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College of Arts and Sciences ..... A\&S 2
Faculty ..... A\&S 73
School of Business and Organizational
Sciences ..... BUS 2
Faculty ..... BUS 24
School of Education ..... EDU 2
Faculty ..... EDU 36
School of Public Affairs and Services ..... PAS 2
Faculty ..... PAS 21 ..... PAS 21
School of Hospitality Management ..... SHM 2
Faculty ..... SHM 6
School of Technology ..... TECH 2
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## The State University System

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.

Due to the conversion from a quarter to a semester system, which will occur in the 1981/82 academic year, changes in programs described in this catalog may take place. Therefore, students are advised to contact their departments for counseling and further information concerning the potential changes.

The fees given in this catalog are tentative pending legislative action.

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# General Information 



## General Information

## State Board of Education

| D. Robert Graham | Governor |
| :--- | ---: |
| George Firestone | Secretary of State |
| James C. Smith | Attorney General |
| Gerald Lewis | Comptroller |
| Doyle Conner | Commissioner of Agriculture |
| Raiph D. Turlington Commissioner of Educa- |  |
| lion |  |
| William D. Gunter, Jr. |  |

## Florida Board of Regents

| Jack McGriff, | Gainesville |
| :--- | ---: |
| J. J. Daniel, | Jacksonville |
| Marshall M. Criser | Palm Beach |
| T. Terrell Sessums | Tampa |
| Wifliam L. Maloy | Pensacola |
| C. DuBose Ausley, Chairman | Tallahassee |
| Betty Anne Staton | Orlando |
| Murray H. Dubbin | Miami |
| Robert Sanchez | Student Regent |
| Barbara Newell | University of Florida |
|  | Chancellor, |
|  | State University System |

## Florida International <br> University Officials

| Gregory Baker Wolfe | President |
| :--- | ---: |
| Steve Aitman | Vice President for |
|  | Academic Affairs |
| Ronald A. Arrowsmith | Vice President for |
|  | Administrative Affairs |
| Henry B. Thomas | Vice President for |
| Student Affairs |  |
| Hanna Saxon | Vice President for |
|  | University Relations |
| and Development |  |
| Terry Spence | University Relations |
| Robert Winter | Executive Director for |
|  | Planning and Analysis |

## Goals

Florida International University, a member institution of the State University System of Florida, presently offers upper level and graduate programs designed to achieve three goals:
Education of Students - To provide university education for qualified students which (a) prepares them for useful careers in social service, business, industry, education and the professions; (b) furnishes them with opportunities to become effective members of 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 metropoti$\tan$ 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

Fiorida International University was established by the Fiorida State Legislature on June 22, 1965. Classes began on September 19, 1972, at the Tamiami campus with an initial enrollment of 5,667 undergraduate and graduate students.

Early in 1973, the Inter-American Center Authority deeded a tract of land to the Board of Regents for a second campus of Florida International University. The University's first building on the North Miami campus was completed during 1976.

The Florida Board of Regents appointed the founding president, Charles E. Perry, on July 11, 1969. He was succeeded on June 1, 1976, by former University of West Fiorida President and Regents Professor Harold Brian Crosby. Gregory Baker Wolfe was named the third president of Florida International University on February I6, 1979. President Wolfe came to the University from the American University in Washington, D.C., where he was Dean and Professor of International Relations. Prior to that he was President of Portland State University in Oregon and had a distinguished international career with the White House and the Department of State in Washington, D.C.

## 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 (S.W. Eighth Street) between S.W. 107 and 117 Avenues. The Bay Vista Campus is focated at the northern tip of Biscayne Bay, just east of Biscayne Boulevard between N.E. 135 and 151 Streets. Both campuses are operated under a central administrative plan.

## 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 of 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.
Universily House accommodates Student Affairs offices, recreation and lounge areas, a 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 Administrative, Graphics and Faculty/ Student Production areas of Media Services, 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 Hospitality Management.

The existing student recreation facilities at the west part of the Tamiami Campus will be expanded in the future, integrated with a teaching gymnasium which will be constructed as resources become available.

## Florida International University, Bay Vista Campus

Florida Internationaf University's Bay Vista Campus is located on a 200 acre site in North Dade County on Biscayne Bay. Four professionał Schools-Public Affairs and Services, Education, Business, and Technology, and the College of Arts and Sciences offer undergraduate and graduate degrees in the program major. The development plan includes structures to accommodate growth needs of Dade and Broward residents and services, and the implementation of a lower division component on the Bay Vista Campus.

Trade Cenler Building, the first building on the campus, is a three-story structure which

## Academic Degree Programs

includes the Library, the Edlers Institute, the Institute for Public Management and Community Services, the FAU-F1U Joint Center for Urban and Environmental Problems, large conference and teaching facilities, and the campus administrative offices.

Academic Building One, opened the Fall of 1979, and houses classrooms, faculty offices, laboratory facilities, Admissions and Records, Student Development, an auditorium, Media Services, the Small Business Development Center, and the South Atlantic Bilingual Education Services Center.

The Student Center Building, opened the Fall of 1980, and houses the Student Activities offices, Nautilus Center, Cafeteria, Bookstore, Student Affairs offices, recreational space, theatre, classrooms, conference rooms and conference facilities.

Academic Two Building is currently under construction, and will be a laboratory/ classroom and faculty office complex for the Sciences, proposed School of Nursing, Dance Studio, Music and Visual Arts. This facility will be completed in early 1982.

A Campus Support Complex is also under construction and will serve the departments of Public Safety, Physical Plant and Purchasing. Future academic buildings, a library building, and student residential housing will be completed as resources become available. Student recreational facilities include a racket sports complex, Nautilus Center, ping pong and billiard tables, backgammon and chess boards, and pinball machines.

As an extension of the Bay Vista School of Education, an FIU Center has been opened at Broward Community College - South Campus, in Pembroke Pines, Florida, a southwestern suburb of Fort Lauderdale. The purpose of the center is to offer School of Education degree programs and certification courses to serve the needs of public and private school teachers and pre-service teachers in South Broward County.

## 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 prolessional schoolsBusiness and Organizational Sciences, Education, Hospitality Management, Public Affairs and Services, and Technology. Graduate study at the master's level is available in the College of Arts \& Sciences and the Schools of Business and Organizational Sciences, Hospitality Management, Public Affairs and Services, Education, and Technology. Graduate study at the

Doctoral level is available in selected concentrations through the School of Education.

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, a Charter Member of the Southeast Florida Educational Consortium, and numerous other educational and professional associations. The following agencies have accredited professional programs at Florida International University: The American Dietetics Association
The American Physical Therapy Association
The American Occupational Therapy Association
The American Medical Association
National Accreditation Agency for Clinical Lab Sciences
The American Society of Clinical Pathologists The American Medical Records Association The Council on Social Work Education
The Accreditation Board for Engineering and Technology

## 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 11011 S.W. 104 Street, Miami, Florida 33176.

The Consortium is governed by a Steering Committee, has an Executive Director, and currently has 16 committees/task forces: Academic Programs; Admissions, Registration, Records; Academically Underprepared Students; Audio-Visual; Career Planning and Placement; Cooperative Education; Facilities; Financial Aid; Handicapped Students; Institutional Research; Libraries; Physical Plant; Public Information; Student Activities; Superior Students; Veterans Affairs; Ad Hoc groups are formed to meet other specific needs.

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

## Academic Programs

 Academic Majors Leadingto the Bachelor's Degree

## College of Arts and Sciences

| Anthropology | Liberal Studies |
| :---: | :---: |
| *Art | Mathematical Sciences |
| *Biological Sciences | *Music |
| *Chemistry | Philosophy |
| ${ }^{* *}$ Computer Science | Physics |
| Earth Sciences | Political Sciences |
| Economics | **Psychology |
| *English | Religious Studies |
| Environmental | Sociology |
| Studies | *Spanish |
| French | Statistics |
| *History | Theatre |
| **Humanities |  |

**International Relations
${ }^{*}$ Note: In accordance with University regulations for two majors or two degrees (see page 14), students in these programs may request admission into the programs of the School of Education leading to teacher certification in the corresopnding 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 Bay Vista Campus.
(Continued)

## Academic Degree Programs

## School of Business and Organizational Sciences

| Accounting | Marketing |
| :--- | :---: |
| Finance | Personnel |
| Insurance | Management |
| *International | Real Estate |
| $\quad$ Business | Transportation |
| Management |  |
| Management Information Systems |  |
| *Can be taken as second major only. |  |

## School of Education

| Adult Education <br> (under <br> development) | Intercultural <br> Education (under <br> development) |
| :---: | :--- |
| Art | Mathematics |
| Bilingual Education | Mental Retardation |
| (under | French Education |
| development) | German Education |
| Biological Sciences | Spanish Education |
| Business and Office | Music |
| Education | Physical Education |
| Elementary | (1-12) |
| Education | Physical Sciences |
| Emotional | Parks and Recreation |
| Disturbances | Social Studies |
| English | Specific Learning |
| Health Education | Disabilities |
| Health Occupation | Technical Education |
| Education | Vocational Industrial |
| History | Education |
| Home Economics |  |
| Human Relations |  |
| Education (under development) |  |
| Industrial Arts |  |

The approval of the major advisor and of the Chairperson of the appropriate college department must be acquired for dual majors.

Note: Interdisciplinary programs are offered by the Schools of Education and Technology. With the concurrence of major faculty advisors, a student may elect to pursue a program leading to either two degrees or two majors, in which cases the student must complete the 60 hour requirement for one and an additional 30 hour requirement for the other.

## School of Hospitality Management

| General Hospitality | Restaurant and Food |
| :---: | :---: |
| Management | Service Management |
| Hotel- Motel | Tourism and Travel |
| Management | Management |

International Hotel Management

## School of Public Affairs. and Services

Public
Administration Social Work

## School of Technology

Apparel Management
Architectural Technology
Civil Engineering Technology Communications

Technology
Construction
Engineering
Technology
Construction Management Dietetics and Nutrition
Electrical Engineering Technology
Environmental and Urban Systems

## Academic Majors Leading to the Master's Degree

## College of Arts and Sciences

Biology (offered jointly with FAU)
Chemistry (offered jointly with FAU)
Community Psychology
Computer Science

## Economics

Environmental and Urban Systems (offered jointly with school of Technology)
International Studies
Mathematical Sciences
Physics (offered jointly with FAU)
Psychology (offered jointly with FAU)
School of Business and
Organizational Sciences
Business Administration
Management: concentrations in Accounting (Including Taxation) Finance
Real Estate
International Business
${ }^{*}$ Note: At the time this catalog went to press, no final decision had been made as to whether full undergraduate programs, graduate program, or both will be offered at the Bay Vista 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

Modern Language Education
Music
Physical Education
Parks and Recreation Administration
Social Studies
Technical Education TESOL
Vocational Industrial

| Health Education | Education |
| :--- | :---: |
| Home Economics | Bilingual Education |
| $\quad$ Education | (under |
| Industrial Arts | development) |
| Intercultural | Urban Education |
| $\quad$ Education (under | (under |
| development) | development) |

Health Education
ome Economics

Industrial Arts
Intercultural
Education (under
Mathematics
Psycho-Educational Services: concentrations in:
Emotional
Disturbances
Counselor Education
School Psychology
Mental Retardation
Specific Learning Disabilities
School of Hospitality
Management
Hotel and Food Service Management

## School of Public Affairs and Services

Criminal Justice
Health Services
Administration
Public
Administration Social Work

## School of Technology

Dietetics and Nutrition
Environmental \& Urban Systems

## Academic Majors Leading to the Doctoral and Specialist Degrees <br> School of Education

The School of Education with cooperating state universities in Florida.

Educational Administration and Supervi-
sion
Curriculum and lnstruction
Community College Education
Adult Education
Urban Educational Policy and Administra-
tion (under development)
Bilingual Education (under development)
International Development Education (under development)
School Psychology (under development)
Technical Vocational Education (under de-
velopment)
Special Education (under development)

## Academic Degrees

## Colleges of Arts and Sciences

Bachelor of Arts<br>Bachelor of Fine Arts<br>Bachelor of Music<br>Bachelor of Science<br>Master of Arts in Economics<br>Master of Science in Computer Science

(Continued)

## Academic Degree Programs

> Master of Science in International Studies
> Master of Science in Community Psychology Master of Science in Mathematical Sciences
> School of Business and
> Organizational Sciences
> Bachelor of Business Administration
> Master in Business Administration
> Master of International Business
> Naster of Science in Management
> School of Education
> Bachelor of Science
> Master of Science
> Specialist in Education
> Doctor of Education
> School of Hospitality
> Management
> Bachelor of Science

## Master of Science in Hotel and Food Service Management <br> School of Independent Studies

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

## School of Public Affairs and Services

Bachelor of Science in Criminal Justice Master of Science in Criminal Justice Bachelor of Health Services Administration Master of Health Services Administration Bachelor of Public Administration Master of Public Administration Bachelor of Science in Social Work

## School of Technology

Bachelor of Science
Bachelor of Technology
Master of Science

## Bay Vista Campus Academic Program

The second major campus of the University opened in June 1977. The academic programs listed below will be offered at the Bay Vista Campus during the 1981-82 academic year with sufficient courses planned to satisfy full degree requirements. Selected courses from the academic major, 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 course listing
(Continued)

## Bay Vista Campus Offerings

| College/School | Level | Major Program |
| :---: | :---: | :---: |
| College of Arts \& Sciences | Undergraduate | Humanities <br> Psychology <br> International Relations (minor in Political Science) <br> Computer Science |
| School of Business and Organizational Sciences* | Undergraduate | Accounting <br> Finance <br> Insurance <br> Management <br> Marketing |
|  | Graduate | Master of Business Administration Master in Management Accounting |
| School of Education | Undergraduate | *Emotional Disturbances <br> *Mental Retardation <br> *Specific Learning Disabilities <br> Elementary Education |
|  | Masters | *Specific Learning Disabilities <br> Elementary Education <br> Early Childhood Education <br> Bilingual Education <br> Educational Administration \& Supervision <br> *Curriculum and Instruction <br> *Intercultural Education <br> Reading <br> (Other areas under consideration) |
| School of Public Affairs \& Services | Undergraduate | Criminal Justice <br> Health Services Administration <br> Social Work <br> Public Administration |
|  | Graduate | Master of Science Criminal Justice Master of Health Services Administration Master of Public Administration Master of Social Work |
|  | Doctorate | Public Administration (planning phase) |
| School of Technology | Undergraduate | Communications <br> Medical Records Administration |
| School of Nursing | Undergraduate | *Nursing (proposed) |

[^1]
## Certificate Programs

to determine if desired subjects are offered at Bay Vista Campus.

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 semester are listed in the course schedule published prior to the registration period.

## Certificate Programs at Florida International University

Certificate Programs at FIU are combinationsof 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

American Studies
Apparel Manufacturing Management
Banking Certificate Program
Bilingual Education (under development)
Caribbean-Latin American Studies Certificate Program
Consumer Affairs Certificate Program
Educational Administration (under development)
Emergency Medical Services Certificate Program
Environmental Studies Certificate Program
Ethoic Studies Certificate Programs: Black, Jewish, Cuban, Comparative
Food Technology
Heating, Ventilating and Air Conditioning
Design Certificate Program
Industrial and Labor Relations
Industrial Safety Certificate Program
Information Systems
International Development Education (under development)
Instructional Development Education (under development)
Insurance Certificate Program
Latin American and Caribbean Studies Certificate Program

Linguistics Studies Certificate Program<br>Marketing<br>Marketing Certificate<br>Marine Science Certificate Program<br>Personael Administration Certificate Program<br>Production and Manufacturing<br>Savings and Loan Certificate Program<br>Technical-Vocational Education (under development)<br>Transportation Management Certificate Program<br>Western Social and Political Thought Certificate<br>Women Studies

## American Studies Certificate

The American Studies Certificate Program provides the opportunity for students to examine the nature of American Civilization through an interdisciplinary study of American history, literature, culture, and thought. The program provides a grounding in American literature and American history, a sampling of how each discipline approaches the study of American civilization, and an opportunity to sample the approaches of political science, anthropology, philosophy and religion. Through a seminar in American Studies, students will apply the insights of the various disciplines to problems of their own choosing. For further information please contact Joyce Peterson in DM 423, College of Arts and Sciences.

## Apparel Manufacturing Management Certificate Program

The professional certificate in Apparel Manufacturing Management is awarded to persons who demonstrate manufacturing management competencies specifically related to the apparel industry. This certificate is primarily designed to meet the needs of those presently employed in the apparel industry who desire the management skills necessary for career effectiveness and mobility. The courses are planned and taught under the guidance of an advisory committee of local leaders in the apparel industry.

A Certificate in Apparel Manufacturing Management will be awarded upon satisfactory completion of twenty credits as listed in the Certificate requirements. These courses may be taken by Special Students with the advice of the Certificate Program Director. Students should complete an application form at the time of their first course registration. For further information please contact Adele Smith, Home Economics Department, School of Technology.

## 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. For further information please contact Emmanuel Roussakis, Finance Department, School of Business and Organizational Sciences.

## 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

> (Continued)

## Certificate Programs

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. For further information please contact Mark Rosenberg in DM 212, College of Arts and Sciences.

## 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. For further information please contact Milton Blum in DM 430, College of Arts and Sciences.

## 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.

## Environmental Studies

The certificate program in Environmental Studies is designed to provide students in various majors with the unique perspective of interdisciplinary ecological education to both enrich and expand the breadth of their primary training. The certificate seeks to provide participants with an analytic basis for understanding the
milieu of local and global environmental problems and processes. The curriculum requires no prerequisite and is complementary to majors in all disciplines and schools at FIU. For further information please contact George Dalrymple in OE 244, College of Arts and Sciences.

## 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. For further information please contact John Stack in DM 445, College of Arts and Sciences.

## Food Technology

This program provides the student with the specialized knowledge in the purchase of fresh produce, storage, processing, packaging and distribution of food products.

## 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. For further information please contact Rene Leonard, Mechanical Engineering Department, School of Technology.

## Industrial and Labor Relations

This program provides the student with the specialized knowledge in labor studies, collective bargaining and labor-management relations. For further information please contact John Remington, Labor Center.

## 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. For further information please contact Donald Wallace in Industrial Systems, School of Technology.

## 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. For further information please contact the School of Business Counseling Office in DN 361.

## 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 18 semester hours, or six 3-credit hour classes, in senior (4000) level insurance courses. The Insurance Certificate requires participants to take five required courses and one elective course. For further information please contact the School of Business Counseling Office in DM 361.

# Certificate Programs 

## Latin American and Caribbean Studies Certificate Program

Latin American and Caribbean Studies at Florida International University represents one way in which the University fulfills its commitment to furthering international understanding. The Latin America and Caribbean Studies Certificate Program encourages students to take an interdisciplinary approach to the study of Latin American and the Caribbean. 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 Latin America and the Caribbean can be gained without pursuing a full course of study at the University. For further information please contact Mark Rosenberg in DN1 212, College of Arts and Sciences.

## Linguistics Studies <br> 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. For further information please contact Lynn Berk in DM 404, College of Arts and Sciences.

## 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 Professional Schoois, 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 3 -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. For further information please contact the School of Business Counseling Office in DM 361.

## Marine Science Certificate Program

The Marine Science Program is designed to meet the needs of students whose general interests are geared to the natural sciences, environmental sciences or engineering.The traditional disciplines of biology, chemistry, physics and geology are reflected in the four courses required for the certificate in marine sciences. The broad background, in turn, prepares students for work in technical fields, for advanced graduate work, or for secondary school teaching. For further information please contact William Goldberg in OE 239, College of Arts and Sciences.

## 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 3 -credit hour courses ( 12 hours total) in the personnel management area of concentration at the graduate level. For further information please contact Ruth Chapman in the Management Department, School of Business and Organizational Sciences.

## Production and Manufacturing

This program provides the student with the specialized knowledge in the processes, cost, planning and control of manufactured products. For further information please contact Jerry Llevade, Industrial Systems, School of Technology.

## Savings and Loan Certificate Program

The program consists of four undergraduate/graduate finance courses. Participants enrolled 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.

The program should be of interest to persons currently employed at the middle management
level in a savings and loans institution who wish to sharpen their industry knowledge, i.e., branch managers, anditors, data processing people, management track personnel, individuals who sell services and individuals (although not currently employed in savings and loan institutions) who desire a career in savings and loan management. The program has been designed by the Florida International University Finance and International Business Department in cooperation with several Florida savings and loans institutions. The program also qualifies for tuition reimbursement at many of the participating institutions. See your personnel officer or training director for additional information.

The program goals include: acquainting the participant with the functioning of the American capital markets and the institutions which service these markets; to survey savings and ioan management techniques and methods of operation. Emphasis is placed on the goals of the savings and loans institutions, and the methods of reaching these goals; and to develop within the participant the ability to systematize the loan evaluation process such that a sound rational credit-loan decision can be made. With the savings and loan program, emphasis will be placed upon the comprehension of the savings, investment, insurance and annuity goals of the individual (personal finance). For further information please contact William Welch, Finance Department, School of Business and Organizational Sciences.

## Transportation Management Certificate Program

The Department of Narketing and Environment offers a Certificate 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 18 semester hours, or six 3-credit hour classes, in senior ( 4000 ) level transportation courses, of which 12 hours are required, 6 hours elective. For further information please contact the School of Business Counsling Office in DM 361.

## Western Social and Political Thought Certificate Program

This certificate program is designed to introduce the student to the history of western social and political thought. As such, the certificate
(Continued)
student will be required to take related course work in various academic departments, a thematic course on the western concept of order. and at least three tutorials that will involve all faculty and students in the program. For further information please contact Brian Nelson in D.I 301C, College of Arts and Sciences.

## Women's Studies Certificate Program

The Certificate Program in Women's Studies provides an opportunity for students to pursue a coherent and interdisciplinary course of study about women. Students will become acquainted with the new scholarship about women in a program that includes both a core of knowledge central to understanding women's historical and current experience and a variety of elective choices suited to students in many different academic areas. The Certificate in Women's Studies may be taken by both degree seeking and non-degree seeking students. For further information please contact Joyce Peterson in DM 423. College of Arts and Sciences.

## Admission

FLORIDA INTERNATIONAL UNTVERSITY ENCOURAGES APPLICATIONS FRON QUALIFIED APPLICANTS WITHOLT REG.ARD TO SEX, PHYSICAL HANDICAP. OR CULTL'RAL. RACIAL, RELIGIOU'S, OR ETHNIC BACKGROUND OR ASSOCIA. TION.

## Freshman Requirements

Beginning freshmen may apply up to one year in advance to the University: It is desirable to apply in the early part of the senior year. The entering freshman class is limited in number. and priority will be given to those applicants whose records indicate the greatest likelihood of success in the lower division program at Florida International Liniversity. The Committee on Admission for the Lower Division is responsible for administering admissions to this program. A separate publication will be published detailing the Lower Division Program. This will be available by request from the Office of Admissions.

## Requirements:

1. Graduation from an accredited secondary school.
2. Twelve academic units in college preparatory courses.
3. An overall "B" average in academic courses.
4. A total score of at least 1000 on the Scholastic Aptitude Test or a composite score of 21 on the American College Test.
5. A record of good conduct.
6. 500 word autobiographical statement.

## Undergraduate Transfer Requirements

A student who has completed an.Associate of Arts degree at a Florida public community college. or has earned 60 semester hours 190 quarter hours) of college credit at any other regionally 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 University:
A student who has completed an-4ssociate of Science degree, or has eamed 60 semester hours ( 90 quarter hours) of credit at a Florida public community college, and who has completed at least 27 semester hours of the 36 semester hours of general education requirements (or the equixalent) as listed in the Academic Regulations section of the catalog. is eligible for admission to the L'niversity. provided his overall GPA is at least 2.00 .

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 Intemational Cniversity, 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 ( 60 semester 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 lice President for Academic Affairs. An undergraduate student who has been denied admission to the University for other than academic reasons may appeal to the L-niversity Registrar.

## Prerequisite Courses and Additional Requirements

Most departments require, for admission to their degree programs. certain freshman and sophomore courses in addition to the general education program. To determine the nature and extent of additional requirements which apply in each case, the applicant should consult that section of the L'niversity Catalog which deals with the program the applicant wishes to pursue at Florida International L'niversity:

## Graduate Programs

A student seeking admission into a graduate program of the Liniversity 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, a " $B^{\prime \prime}$ or better average in all work attempted while registered as an upper division student seeking the bachelor's degree.

All applicants are required to present scores on the Graduate Record Examination or the Graduate Management Admission Test (School of Business and Organizational Sciences). Any disabled student who must take a graduate test (i.e. GRE or GMLAT) should contact the special services counselor/coordinator at 552-2421 before registering for the exail.

It is possible for an applicant who fails to meet these criteria to appeal the admissions decision and be considered under the Board of Regents" 10 percent policy: This policy allows up to 10 percent of the graduate students admitted for a particular academic year to be admitted as exceptions to the above criteria.

## Admission Procedure

L-ndergraduate and graduate degree-seeking students may obtain an application for admissions. catalog. and other material from the Office of Admissions, Florida International Cniversity: Tamiami Campus. Tamiami Trail, Miami, Florida 33199 or Bay lista Campus Office of Admissions, North Miami, Florida 33181.
Completed admission application and all supporting credentials must be on file with the Office of Admissions 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 admissions:
Application for Admission: A fifteen dollar (S15) non-refundable application fee must accompany the completed application form. The deadline for accepting applications each semester is contained in the University Calendar given in the Catalog.
..on-admitted degreeseeking student applications will be kept on file for one year from the requested date of entry:
Freshman Applicants: In addition to the application for admission, the official secondary school transcript must be sent from that school and either the Scholastic Aptitude Test scores or the American College Test scores must be received from the testing agency: A 500 word autobiographical essay; handwritten by the applicant, must also be submitted in support of an application to the Lower Division Program.
Transfer Applicants: Official transcripts must be fonvarded to the Office of Admissions by the Registrar of all college-level institutions
(Continued)

## Admission

attended. It is the responsibility of the applicant to initiate requests for necessary transcripts (including final transcripts) from each postsecondary institution attended. Transcripts must be received no later than 15 days preceding the first day of class.

Note: Additional Requirement-School of Education: All applicants for teacher education programs must score at or above the 40th percentile on a standardized college entrance test, (i.e. 835 or above total score on the S.A.T., or 17 or above on the A.C.T.) It is possible for an applicant who fails to meet this criteria to appeal the admission decision and be considered under the 10 percent waiver rule.

Student Health Form: Every student must complete a student health form. The forms will be supplied by the University.

## Readmission

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 Admission (PC 140, Tamiami Campus; A1-160, Bay Vista Campus). Such students must meet any new degree requirements which have been instituted since they were Jast enrolled.

If the student has attended other institutions since last enrolled at Florida International University, transcripts must be sent by the Registrar directly to the Florida International University, Office of Admissions. These transcripts must be received by Florida International University before a readmission decision can be rendered.

## 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 nonrefundable $\$ 15.00$ (U.S. dollars) fee.

Academic Records: Appropriate official transcripts or certified copies of academic records and the English Translations, validated by an official public translator; and all other appropriate credentials, must be forwarded to the Office of International 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 En-
glish as a Foreign Language (TOEFL).
For information write to: the TOEFL pro-
gram, Box 899, Princeton, New Jersey 08540, U.S.A.
- A minimum score of 85 on the Michigan Test English Language Proficiency Program (MTELP). For information write the MTELP, University of Michigan, Ann Arbor, Michigan 48109, U.S.A.
- The ALIGU Test, (American Language Institute, Georgetown University), Washington, D.C. 20007, U.S.A.
- 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, U.S.A.
- Successful completion of 30 semester hours ( 45 quarter hours) of course work at an American college or university including 6 semester hours ( 9 quarter hours) of English composition.
Declaration and Certification of Finances: A Declaration and Certification of Finances must be completed before the Certificate of Eligibility (Form 1-20A) 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 1-20A. 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
Primera Casa 140
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 semester for which the 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, Room 340.

Graduate Students: For information about the Graduate Record Examination (GRE) and Graduate Management Admission Test (GMAT), write to Educational Testing Service, 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 (lower division) student, $\$ 684.00$ is the average tuition cost for each semester. As an undergraduate (upper division) student, $\$ 927.00$ is the average tuition cost for each semester. (lmmigration regulations requires an international student to attend school at least two semesters during an academic year). The average tuition fee is based on 12 credits, which is the minimum required load for an undergraduate international student. For a graduate student, $\$ 837.00$ is the average tuition cost each semester. This tuition fee is based on 9 credit hours per semester, which is the minimum required load for a graduate international student.

# Registration 

## Annual Estimate of Cost

International Students (Fees are subject to change without notice)

## Single Student

Tuition
Books and Supplies
Housing and Food
Transportation
Miscellaneous
TOTAL
A married student who plans to bring his/ her spouse should add $\$ 2200.00$ to the tota! under the estimate column.

A couple with children should add the proper figure to the total under the estimate column: $\$ 1000.00$ for the first child, $\$ 800.00$ for the second child and $\$ 600.00$ for each additional child.
Immigration Naturalization Services regulations require that an international student attend school for 2 semesters 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 a 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 12 semesters hours each semester (undergraduate) and 9 semester hours each semester (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 alient 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
students, familiarizes them with a variety of services and assists them with registration.

## Registration

Registration will be held as follows: The Official Registration Period will begin three weeks prior to the end of the preceding term and will end one week later. During this period students will be allowed to register on a priority basis determined by their class standing. Degree-seeking students will be given an appointment date for registration at this time.
Open Registration will be held immediately following Registration Week and will continue until the Wednesday one week prior to the beginning of classes. There will be no appointment date and will be on a first come first serve basis. All students are encouraged to register at this time.

## Late Registration Fee

Students who were enrolled in on-campus courses during the previous term and who are not registered by the end of the open registration period, will be assessed a $\$ 25$ Late Registration Fee for the privilege of registering during the Late Registration Period. The Late Registration Period will be the Monday and Tuesday prior to the first day of class. Students who were not enrolled in the previous term will not be assessed a Late Registration Fee during this period. All students who initiate registration after classes begin will be assessed a Late Registration Fee.

## Withdrawal From the University

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

A student who officially registers for a particular semester and subsequently decides not to attend (no shows) or to leave during the semester, must officially withdraw from the University through the Office of Registration 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 semester.

The transcript record of a student who officially withdrau's 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

## Academic Regulations

attending the University without officially withdrawing will contain an $F$ grade for each course, as appropriate to the course grading option.

## 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 University. 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, (Student Background Information Form).
- Registration for specific classes is on a space-available basis and is determined at the time of registration during open Registration, Registration Day or Late Registration.
- Credit earned will not be counted toward a degree at Florida International University unless the student subsequently applies for regular admission and is accepted as an undergraduate or graduate degree-seeking student.
- No more than the following semester hours earned as a special student may be counted toward a degree:

Graduate Level: 10 semester hours Undergraduate Level: 14 semester 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.
- 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: An International student is not permitted to enroll as a special student. Immigration regulations require an International 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 Registrar's Office.

## 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 120 semester hours of credit with the required grade point average.
2. Completion of the last 30 semester hours of coursework at Florida International University.
3. Satisfactory completion of Florida International University's general education requirement.
4. A minimum of 2.0 GPA on all coursework completed at Florida International University.
5. Recommendation of the Faculty of the College or School awarding the degree.
6. Certification by the Dean of the College or School concerned, that all requirements of the degree being sought have been completed.
Florida International University will confer the master's degree when the following conditions have been met:
7. Successful completion of a minimum of 60 semester hours for degrees requiring two years of work and 30 semester hours for those requiring one year of work.
8. A minimum 3.0 GPA on all coursework completed at Florida International University.
9. Recommendation of the faculty of the College/School awarding the degree.
10. Certification by the Dean of the College/ School concerned, that all requirements of the degree being sought have been completed.
Note: Normally a minimum of 24 semester hours must be completed at Florida International University for a 30 semester hour program and 50 semester hours for a 60 semester 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 36 semester hours ( 54 quarter hours). Florida International University requires the following general education program: 6 semester hours each in the areas of social science, natural science, English composition, and humanities; 3 semester hours in mathematics, and 9 semester hours of electives in the above areas. Following is a list of possible courses that will fulfill Florida International University's general education requirements:

English Composition: Composition, Creative Writing or Expository Writing.
Humanities: Music (non-performing), Drama, Literature, Foreign Language, Logic, Philosophy, Art, Religion, Speech, History, or West/East Civilization.
Mathematics: Trigonometry, Analytical Geometry, College Algebra, Statistics, Calculus, College Mathematics, or Business Mathematics.
Natural Science: Physical Science, Astronomy, Chemistry, Earth Science, Biology, Botany, Geology, Geography (Phy. Sci.), Zoology, Environmental Studies, Food Science, or Physics.
Social Science: Anthropology, Sociology, Psychology, Geography, Economics, International Relations, or Political Science.
In this connection, the following policies have
been established:

- a student who has graduated from a Florida public community college with an Associate of 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 an accredited 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.
The College Level Examination Program (CLEP) is another acceptable alternative to fulfill these requirements. CLEP scores are acceptable at the 50th percentile and above.
General Examination Test .............CLEP
- English Composition with Essay - a student will be awarded up to six semester hours credit for English less hours previously earned in any college level English course, if a minimum score of 610 is achieved.
-Humanities - a student will be awarded up to six semester hours of credit if a
(Continued)


# Academic Regulations 

minimum scaled score of 489 is achieved.

- Mathematics - a student will be awarded up to six semester hours of credit if a minimum scaled score of 497 is achieved.
- Natural Science - this test is divided into two parts, biological and physical science. If a minimum subtest score of fifty $(50)$ is achieved in biological science, 3 semester hours will be awarded. If a minimum subtest score of forty-nine (49) is achieved in physical science, 3 semester hours will be awarded. If a total score of 489 is achieved, 6 semester hours will be awarded.
- Social Science - a student will be awarded 6 semester hours of credit if a minimum scaled score of 488 is achieved.
For additional information regarding the CLEP Subject Exams, please contact the Office of Admissions.


## 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.

## Student Grievance Procedures

On academic matters, aggrieved student should first discuss their complaint with the departmental Chairperson. Problems regarding general University (non-academic) matters should be directed to the office of Assistant Vice President of Student Affairs. Students should consult with this office for all disciplinary clearances and details on University grievance procedures. The office location is PC 304, 552-2353.

## Classification of Students and Course Loads

Students are classified by the Registrar's Office as follows:
Junior: Through 90 semester hours credit.
Senior: 91 or more semester 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 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:

|  | Ug. | Grd. <br>  <br>  <br> Hours |
| :--- | ---: | ---: |
| Hours |  |  |

Part-time students are those taking less than the figure indicated. The normal course load for a full-time undergraduate or graduate student is 12 semester hours. A course load of more than 17 semester hours must be approved by the student's advisor and dean (or designee). An Undergraduate International Student must carry and satisfactorily complete 12 credit hours each semester, and a Graduate International Student must carry and satisfactorily complete 9 credit hours each semester to meet the fulltime status requirement of the Immigration and Naturalization Service.

## Class Attendance

The University does not require class attendance and does not maintain penalties for nonattendance. 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 Registration and Records 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 another institution; students may get copies of these from that institution.

## Program and Course <br> Regulations Academic Definitions:

Credit - The term "credit" as used refers to one hour of classwork or the equivalent each week for an entire academic term.
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 GEN 4,5 and 6 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. These certificates are awarded by the College or Schools:
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 a bachelor's degree.
A Certificate in Continuing Studies - 1 s 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 ONE degree unless a

## Academic Regulations

minimum of 30 appropriate semester 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 one degree is involved, a notation denoting both majors will be entered on the transcript. A Request for Second Major form must be filled out in the Office of Registration and Records if a student is declaring two majors.
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 30 appropriate semester 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 maor department, which shall include (but are not limited to) a minimum of 30 semester hours of course work, as well as any other University-wide graduation requirements.
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 Registration 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, 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 my transfer up to 90 semester hours (135 quarter hours) and those transferring from twoyear colleges may transfer 60 semester hours ( 90 quarter 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). English exam must be with/essay.

Note: A student who desires additional information on CLEP should contact the Office of Admissions 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 and pay for the courses in the regular manner.

## Credit For Non-College Learning

Undergraduate - The awarding of credit for learning acquired outside of the university or classroom experience is the prerogative of each academic department or program. Only the degree-seeking student is eligible to receive this type of credit. The significant learning 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 experiential learning. In cases where a student's learning 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 14 semester hours of a 30 semester hour master's degree, nor 20 semester hours of a 60 semester hour 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.

## Advanced Placement Program

Florida International University is a participant in the Advanced Placement Program of the College Entrance Examination Board. The student who scores 3,4 , or 5 on these tests may receive credit for courses covering similar material.

## 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.

## Academic Regulations

| Grading System |  |  |
| :---: | :---: | :---: |
| Grade Points Per |  |  |
| A | Excellent |  |
| B | Good | 3 |
| C | Average | 2 |
| D | Poor | 1 |
| F | Failure | 0 |
| P | Satisfactory (Pass) | N/A |
| 1 N | Incomplete | N/A |
| W1 | Withdrew from University | N/A |
| AU | Audit | N/A |
| DR | Dropped Course | N/A |
| *NR | Grade Not Reported or Invalid | 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 $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$, or F is received are calculated in the GPA.
*NR is only a temporary symbol.

## Grading Option

The College/School will make the determination of the grading option of each course. A course may be offered for letter grade, meaning that the student will receive $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ or F ; Pass/Fail, meaning the student will receive a $P$ for pass or an F for fail; optional grading option, in which case the student has a choice of taking the course for either letter grade or Pass/Fail. The grading option must be indicated at the time of registration and may not be changed after the first week of classes. There are no exceptions to this deadline.

Audit grading option means that no grade is assigned but an AU will be recorded. The student must obtain the permission and signature of the instructor of the course to be audited. Once a course has been requested as an audit, the grading option may not be changed. The first week of classes is the deadline to change the grading option to audit. There are no exceptions to this deadline.

## Incomplete Grade

An incomplete grade is a temporary symbol given at the discretion of the instructor for work not completed because of serious interruption not caused by the student's own negligence. An incomplete must be made up within two semesters or it will automatically default to the grade that the student earned in the course. There is no extension to the two semester deadline. The student must not re-register again for the course to make up the incomplete.

## Repeated Courses

A student who repeats a course must file a Repeated Course Form with the Office of Registration and Records. All courses taken by a student with the grades earned will be reflected
on the transcript with each repeated course appropriately designated, only the last grade will be calculated in the Grade Point Average.

## Dropping and Adding Courses

The first week of each semester 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 (without a fee liability). If student has paid fees he/she must fill out a Refund Request Form at the Cashier's Office.

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

## Change or Correction of Grades

Once submitted, end-of-semester 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 withinone calendar year after the date of the initial end-ofsemester grade to the Office of Registration and Records.

## Transcript

The transcript is the complete student record of courses taken at Florida International University plus the (number of transfer credits). The grade point average (GPA) is calculated for all courses taken after the Fall Quarter, 1975. All grades will be calculated in the GPA whether the course is in the major program o not. Once a degree is posted, the GPA calculation will start again.

A student must request his or her transcript in writing and there is a three day processing period. A student's transcript or diploma will not be released if the student has a financial liability.

## Grade Reports

At the end of each semester, the Office of Registration and Records mails each registered and paid student a copy of his or her grades.

## Academic Honors (Undergraduate)

To graduate with honors a student must have earned a cumulative GPA between 3.500-3.749 and have received no more than two NC's.

To graduate with high honors a student must have earned a cumulative GPA bet ween 3.750 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 forty semester hours at Florida International University since the Fall of 1975.

## Dean's List

Any undergraduate student who earns a semester average of 3.5 or better on 6 or more hours of course work for which grade points are earned, is placed on the Semester Dean's List. This achievement is noted on the student's semester report of grades and permanent academic record (transcript).

## 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 may appropriately communicate conditions which must be met in order to continue to enroll.
DISMISSAL: A student on PROBATION whose cumulative and semester GPA's fall below a 2.0 (undergraduate) or 3.0 (graduate) will be automatically dismissed from his/her program and the University. The student has ten (10) 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, the dismissal from the University is for a minimum of one year. After one year, the student may apply for readmission to the University in the same or a different program, or register as a special student.

## Final Examinations

Final course examinations will be given during the week following the last day of classes during each semester. The Summer semesters do not have final examination periods and final course examinations may be given at the discretion of the faculty member teaching the course.

## Financial Information

## Application for Graduation

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

## 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 semester 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.

## Financial Information

## 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 twelvemonth 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. This means that, during the twelve-month period, the student may visit outside the state for brief periods. It does not shorten the twelve-month period. 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 bona fide 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" clas-
sification must be supported by evidence as stated in (1) if requested by the registering authority.
(3) A "non-Florida student" or, if a minor, his parent or guardian, after having been a resident and domiciliary of Florida for twelve (12) consecutive months, may apply for and be granted reclassification prior to the first day of classes of any subsequent term; provided, however, that those students who are non-resident aliens or who are in the United States on a nonimmigration visa will not be entitled to reclassification. An application for reclassification as a "Florida student" shall comply with provisions of subsection (2) above. An applicant who has been classified as a "non-Florida student" at time of original enrollment shall furnish evidence as stated in (1) to the satisfaction of the registering authority that the applicant has maintained continuous residency in the state for the twelve months required to establish residence for tuition purposes. In the absence of such evidence, the applicant shall not be reclassified as a "Florida student." In addition, the applicant for reclassification must be accompanied by a certified copy of a declaration of intent to establish legal domicile in the state, which intent must have been filed with the Clerk of 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 nonresident 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.

## Financial Information

(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 therefore 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.
(c) 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 Cana 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 organization.
(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 education 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 designed categories of students and may include contractural 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.

## Fees and Refunds

## Fees

Fees are established by the Board of Regents as approved by the State Legislature and are subject to change without notice.

|  | Florida Residents | Non-Florida Residents |
| :---: | :---: | :---: |
| Lower Level | \$22.50 | \$57.00 |
| Undergraduate | per | per |
| Courses | sem. hr. | sem. hr. |
| Upper Level | \$24.75 | \$77.25 |
| Undergraduate | per | per |
| Courses | sem. hr. | sem. hr. |
| Graduate Level | \$33.00 | \$93.00 |
| Courses | per | per |
|  | sem. hr. | sem. hr. |

Audit registration fees are the same as the above fees, except no assessment will be made for the out of state portion.

The dates by which these fees must be paid for each academic period may be obtained from the University Cashier's Office. Current fee information can be obtained from the University Cashier's Office.
*Note: Registration is not complete until fees are paid in full. Fees are subject to change without notice.

## Sundry Fees

Application fee - (non-refundable) $\$ 15.00$
Parking fee - (non-refundable) assessed all students except those enrolled only in off campus or external degree programs. 1.25

Health Fee - (non-refundable) assessed all students except those enrolled only in off campus or external degree programs. 5.00 Library fines - per book or unit per day . 25 Overdue reserve books - per book per library hour
.25
Late registration fee - assessed all students who register after official registration period or fail to pay full fees by the established deadline. (See academic calendar for dates)
$\$ 25.00$
Reinstatement fee - assessed all students whose registration has been cancelled for nonpayment of fees, who petition for reinstatement before the established deadline. (See academic calendar for date) this fee is in addition to the late registration fee.
25.00

Intern Certificate of Participation 3.75 per hr.
ID card replacement 1.00
${ }^{*}$ Note: These fees are subject to change without notice. Additional fees may be added at any time.

## Checks

The University will accept personal checks for accounts due to the University. These checks must be for the exact amount due only. The University cashier will under no circumstances cash checks above amount due or for cash. The University is required to collect a service fee for any check, draft, or order which may be returned by the bank for any reason.

## Refund

A 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.
After the end of late registration there will be no refund of registration fees except in the following cases:

## Death of a Student.

Involuntary call to military service.
In the above instances the per hour fee, less a $\$ 3.75$ per hour, will be returned.

No refund will be made under this policy except upon proper application through the cashiers office.

This policy is subject to change due to legislative action.

## Past Due Accounts

All student accounts are due and payable at the Cashier's Office, Room 120 Primera Casa on the Tamiami Campus, or Room 140 Academic I on the Bay Vista Campus, when the charges are incurred.

Delinquent accounts will be considered sufficient cause to prohibit registration, graduation,

## Student Affairs

release of transcripts or release of diplomas for students.

The University is not able to grant credit or time payments for any fees. Financial aid is available to those qualifying through the office of Financial Aid. A limited number of short term loans are available to individuals who may experience problems in meeting fee payment due dates.

## 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; Room 125; Bay Vista Campus; Academic I, Room 186) has 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 University participates in the National Direct Student Loan Program, the College Work-Study Program, the Florida Student Assistance Grant Program, the Supplemental Education Opportunity Grant Program and the Pell Grant Program (formerly the Basic Grant). Forms for the Guaranteed Student Loan, a type of transaction between local lenders and the student, are also processed through the Office of Financial Aid. There is a six 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 fully admitted to the University as a degreeseeking student. A new application for aid must be submitted each year. Forms are available in February for the following Fall semester and academic year. In order to receive priority consideration, a student must apply by the deadline as established by the Financial Aid Office. A student should apply for Financial aid as soon as possible, DO NOT wait until you have been admitted by the Office of Admissions.
Before a financial aid application can be evaluated, students must do the following:

1. Complete a Family Financial Statement (FFS) packet and the Student Data Form and mail both directly to the American College Testing (ACT) Program in Iowa City. They will perform a need analysis on the student's application and will mail a computerized version to Florida International University. This analysis will then be evaluated to determine financial need.
2. Financial Aid transcripts are required of all students who have attended previously, one or more post-secondary educational in-
stitutions, whether or not financial assistance was received.
3. A Statement of Educational Purpose must be signed and returned to the Financial Aid Office.
4. All students must submit a copy of their 1980 Income Tax Report to the Financial Aid Office. Dependent students will submit their parents' 1980 Income Tax Report for the 1981-82 academic year.
In accordance with guidelines set by the De partment of Education, all students receiving federal financial aid must be making satisfactory progress toward the completion of a degree; therefore, the Financial Aid Office defines measurable academic progress for all students who received financial aid in the prior year as follows: completion of 12 credit hours in 1 semester, 24 credit hours in 2 semesters, and/or 36 credit hours in 3 semesters, with a cumulative grade point average of 2.0 as a minimum. New aid applicants will also be required to have a 2.0 minimum GPA in order to receive financial aid.

Failure to meet these requirements will render you ineligible for financial assistance for the subsequent year.

Grant monies will not be available for students who have completed the necessary coursework to obtain a degree.

No aid will be awarded if the student has any outstanding debts with the University unless he has made prior arrangements for payment.

Students are expected to apply for the FSAG program if they meet the following criteria: Citizen or permanent resident of U.S. who has resided in or had domicile in Florida for at least 24 consecutive months preceding the beginning of the academic year for which application is made.
Please note that the opportunities for financial assistance are limited if a student does not meet residency requirements in accordance with Federal guidelines. (Check instructions on residency before filing for assistance).

Students who drop below full-time status or withdraw may be required to repay a portion of their awards according to the RefundRepayment Policy of the Financial Aid Office.

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.

## Veterans Information

The Veterans Affairs Office assists all veterans and their dependents who wish to receive V.A. educational benefits. Personal counseling, fee deferments, tutorial assistance, educational loans and work/study jobs are available through the Office of Veteran Affairs. The V.A. Office is
located in PC 130 at the Tamiami Campus and Academic I at the Bay Vista Campus.

Veterans planning to attend Florida International University should contact the Office of Veterans Affairs 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.


## 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 the University and to provide a broad scope of opportunities to expand upon classroom knowledge.

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 the campus. At Bay Vista, Student Affairs offices are located in Academic I and the Student Service Center.

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.

# Student Affairs 

## 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.

## Admissions, Registration \& Records, Financial Aid

The University Registrar is responsible for the Office of Admissions, the Office of Registration and Records, the Office of Financial Aid, and the related data entry - data control functions. These areas function as an interrelated unit that is responsible for the orderly and timely admission of students, evaluation of transfer credits, the provision of financial aid to students who can benefit from higher education but cannot do so without some assistance and dissemination of information about academic programs of the University. It is in these offices 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 Registration 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.

## Off-Campus Housing

The Off-Campus Housing Program gives students at both the Tamiami and Bay Vista Campuses a listing of off-campus apartments, townhouses, rooms and houses for rent. The rental file is in University House 340, and Academic I 311. The file is updated and offers information on units available in Miami neighborhoods, rental cost, as well as other rental arrangements.

The Housing Office offers personalized advice and counseling in choosing rental arrangements, as well as what to do in the case of difficulties; however, each student must apply for, select, and evaluate their own housing accommodations. It is suggested that you come
during the week, many apartment rental offices are closed on weekends.

A roommate listing exchange service assists students searching for a roommate to share housing, as well as companionship.

Maps and other information such as the MTA countywide bus network, are free to students. Other pamphlets may be obtained at no charge, on a variety of consumer issues.

## Counseling Services

Counseling Services located in UH 340 at the Tamiami Campus and Academic I, 311 at the Bay Vista Campus, offers a variety of counseling, advising, and testing programs for both individuals and groups. Academic counseling is provided to assist with the choice of a major or academic field of study, and to act as liaison with academic departments. Career Counseling is available to provide assistance in selection of and preparation for career-life planning, including individual exploration of interests, options, abilities, needs, and goals, as well as career opportunities. Personal counseling is also available for concerns such as personal growth and development, family problems, and social concerns. We also offer testing in the areas of personality inventories and interest inventories. In addition, workshops and seminars are held periodically on topics of special relevance to students.

## International Student Services \& Programs

The International Student Services Office, located in UH 340 at the Tamiami Campus and in Academic 1, 311 at the Bay Vista Campus, 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 Advisors serve as a liaison on immigration matters, and provide assistance with academic, financial, social and personal problems besetting international students. An orientation program is held at the beginning of every semester 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. Various programs are provided to enable the total student body to participate more fully in the international dimension of the university, i.e. "International Week, United Nations Day". In addition, a university-wide Study Abroad Program and reference library is being developed.

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 semester. An admissions brochure is provided for prospective students interested in attending Florida International University.

## 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, or mental or psychological disorders. Special Services, located in UH 340 at the Tamiami Campus and in Academic I, 311 at the Bay Vista Campus operates to provide information and assistance to disabled students attending or wishing to attend FIU. Services include counseling, assistance with registration and class schedules, special equipment, talking books, talking cassettes, cassette machines, electric typewriters, notetaker, and on campus attendants; and help in overcoming architectual, academic or other obstacles which the disabled student may encounter.

## Developmental Education/ Student Retention Services

Developmental Education/Student Retention Services is a department of the Student Affairs Division. The department's major purposes are: I. To retain students incurring academic and personal problems; 2. To refer those students with academic problems to the department's learning labs or to the library skills program; 3. To personally counsel any student with problems of a non-academic nature.

The Learning Laboratories on both campuses are free to all students desiring to use their services. The labs offer tutoring in mathematics, economics, statistics, accounting, physical sciences, reading and writing skills. Students can also receive study skills booklets such as: THE BLACK EXPERIENCE AT FIU; HOW TO IMPROVE YOUR READING SKILLS; HOW TO BUILD YOUR WRITING SKILLS; HOW TO GET THE MOST OUT OF YOUR TEXTBOOK; and HOW TO PREPARE SUCCESSFULLY FOR EXANIINATIONS. For information on the locations and hours of the laboratories, please call or visit our offices: Tamiami - 552-2436 - UH 330 - Bay Vista -940-5817, Academic I - 311.
Advising and Counseling involves academic guidance and assessment of social interests. In the event a student should need in-depth or extensive counseling, he/she can be referred to the Counseling Department.

Other services provided by the Student Retention Department include: I. Early alert sys-
(Continued)

## Student Affairs

tem for students on academic warning - plus assistance for those on probation and dismissal; 2. Orientation in University policies; 3. Course advisement; 4. Registration assistance; 5. Academic reinstatement; 6. Personal exit interview; 7. Diagnostic and self-scoring testing.

## Career Placement

The Career Placement Department, UH 340 at Tamiami and Academic I 311 at Bay Vista, assists students with career choice selections. Additionally, on-campus interviews are scheduled with employers. In order to assist students in preparing for employment, there are seminars each semester in learning effective communication techniques for interviews with employers (resume writing, letters of introduction and application, developing interviewing techniques and skills, etc.).

The Career Placement Department maintains notebooks which list opportunities for parttime, full-time and summer employment. The department also uses bulletin boards to post information on employment vacancies and careers. One board is located on the first floor of UH; the other is in Academic I 311 on the Bay Vista Campus.

## Cooperative Education

Cooperative Education allows students to alternate semesters of full-time paid employment, for which academic credit is earned, with semesters 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/ Placement UH 340 at Tamiami or Academic I 311 Bay Vista Campus.

## Consortium Career Planning and Placement Services

Students and alumni of the three member institutions of the Southeast Florida Educational Consortium may request 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.

## University House <br> (Tamiami Campus)

University House is the primary student center, and provides a focal point for the university community to meet and interact in a nonclassroom, 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, Off-campus Housing, Campus Ministry, and Retention and Learning Skills are located on the third floor of the University House.

## 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 Bay Vista 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 Student Services 115, on the Bay Vista 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 Bay Vista Campus, student groups are just in the process of forming. Students on Bay Vista Campus have a unique opportunity to have an impact on what groups become a part of campus life. The Student Activities Office 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

Current students may attend activities open
to Consortium students at any campus of the University, Broward Community College, and Miami-Dade Community College.

Procedure: present student ID or current fee receipt. The three institutions arrange for 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.

## Intercollegiate Athletics

The Department of Intercollegiate Athletics and Recreational Sports offers varsity sports for both men and women. Men's NCAA intercollegiate athletics include basketball, baseball, golf, soccer, tennis. Women's AIAW intercollegiate athletics include basketball, golf, softball, tennis and volleyball. The department also offers cross country (men) and cross country (women). The department is located in the Modular Building (W-4) on the west side of the Tamiami Campus, Room 201, telephone 552-2756.

## Recreational Sports

The Recreational Sports Office is dedicated to serving the physical and leisure needs of the FIU community. Four areas of participation are offered: Club Sports, Intramurals, Leisure Activity Classes and Facilities available for student and faculty use.

Club Sports are structured organizations that meet on a regular basis for the purpose of enhancing activity interests. Club sports have been organized in cooperation with the surrounding community and other four-year colleges. This non-varsity program helps to promote goodwill among the colleges in the South Florida community. Clubs are sponsored in fencing, bowling, karate, judo, and men's and women's tennis.

A full program of intramural sports is offered each semester, and all interested students are encouraged to participate. Both competitive and recreational leagues are available, free from excess time demands as in intercollegiate and club sports. Intramurals include softball, soccer, tennis, racquetball and bowling.

Most FIU students have a free noon period, allowing enough time to get involved in a leisure activity program, take a shower, and get back to classes. A variety of athletic activities will be taught by members of the FIU athletic coaching staff. Short lectures and drills will complement periods of participation and general overall fitness. Several night classes are also offered.

All athletic facilities are open to students, faculty and staff with the exception of times reserved for intercollegiate, intramural and other recreational sports. The facilities located

## Student Affairs

on the west end of the Tamiami Campus are the Tursair Building ( $\mathrm{W}-9$ ) - wrestling, weight room and mats; Tin Gym (W-7) - basketball and volleyball courts; tennis, paddleball, racquetball and handball courts; putting green and chipping area, outdoor basketball courts and recreational fields. Locker rooms for men and women are available with prool of a valid University ID.

The Recreational Sports Offices are located in the Modular Building (W-4), on the west side of the Tamiami Campus, Room 202. For further information concerning any of the recreational sports programs, dial the Rec. Sports Hotline at 552 -CALL, Monday through Friday, from 11 a.m. to 3 p.m.

## Student Government

The Student Government Association (SGA), with offices on the Tamiami Campus in University House 310 and 311, and on the Bay Vista Campus, 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 recommends to the Senate, 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 decisionmaking processes at the University. At the same
time, for effective two-way communication, it is important that students also give consideration to the view 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 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 Bay Vista campus also, the opportunity exists for students to initiate any publications they wish. Come to the Student Activities Office in Academic I 111, for further information.

## Student Health Care

The purpose of student health services is to provide comprehensive health care to the students of F.I.U. at a level commensurate with the students needs.

The health clinic at the Tamiami Campus (located in O.E. 115) is staffed by full time registered nurses, a family nurse practitioner and a part-time physician. A full-time registered nurse staffs the clinic on the North Campus and the nurse practitioner is available there one day a week.

The clinic on the Bay Vista Campus will be located in Academic I. Check with Student Affairs for location. Hours are posted in both clinics.

The clinics provide care for illnesses and emergencies. In addition preventive health care is emphasized. Health teaching in diet, exercise, stress management, and use of the health care system are integral parts of our program. Family planning, laboratory and physical therapy services are available.

For further information about special student insurance contact the Health Clinic on either campus, phone 552-2401.

## Word Processing Center

The Word Processing Center was organized in June of 1980. The equipment is capable of producing camera-ready copy. Among some of the accomplishments of the Center is the Undergraduate Counseling Manual, and the Graduate Counseling Manual - both of these documents are now on diskettes in the Center and updating is accomplished very quickly and efficiently. Also, the letters of acceptance sent to our students are generated from our Word Processing Center. The Center is a back-up support system for the entire Division of Student Affairs.

## 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. Hillel, the Jewish student center maintains a full time office within the ministry.

The office is open Monday through Friday from 9:00 a.m. to 5:30 p.m. (4:00 on Friday) and evenings as posted. Office location is University House 310, telephone 552-2215.

## Food Service

Food and beverage service at Tamiami Campus is available on the first ffoor 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. Bay Vista Campus initially will be served by a variety of vending machines.

## Administrative Affairs

Administrative Affairs at Florida International University exists to plan, facilitate, and service the other areas of the University. It offers many services centrally for this multi-campus University, 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

## Administrative Affairs

## Administrative Affairs

solvers at each location. Administrative Affairs operates the following nine service areas:

Staff Functions
Legal Affairs
Physical Planning
Internal Management Auditing Unit
Southeast Regional
Data Center

Service Operations
Auxiliary Services
Environmental
Health and Safety
Office
Physical Plant Operations
University Controller
University Personnel Services
University
Purchasing
Services
Each area is described briefly below:

## Auxiliary Services

The Auxiliary Services at 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, and vending.

## Environmental Health and Safety

The Environmental Health and Safety Office is responsible for compliance activities with Federal, state and local health and safety codes, rules, and regulations. Additionally, the office is responsible for coordinating Section 504 of the Rehabilitation Act of 1973, which includes developing, implementing, and monitoring programs designed to eliminate discrimination on the basis of disability.

## 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 responsibilities, by furnishing them with objective analyses, appraisals, recommendations, and pertinent comments concerning the activities reviewed.

## Legal Affairs

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 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, and implementation of the University's physical development program - this includes the programming, design, and construction of all major buildings and campus 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 facilities is maintained, including base maps, as-built drawings, and other development criteria essential to facilitating the University's accelerating construction 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 $\$ 10,000$.
- 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.


## Southeast Regional Data Center SERDAC

SERDAC was created to serve the computing requirements of both Florida International University and Florida Atlantic University (FAU).

The Data Center provides instuctional, research and administrative computing support to its user campuses via terminal access to the SERDAC computer. In addition, SERDAC provides computing support to other eligible educational and governmental institutions in the South Florida region.

The campus computer facilities, which provide both batch and timesharing access to the SERDAC computer system, are operated and controlled by F1U Computer Operations (a separate organization which is guided in policy formation by the Office of the University's President) and by a similar group at FAU.

SERDAC is guided in the formation of policy by a five-member policy board comprised of one member from the Board of Regents/ Management Information Systems Office, and two members each from FIU and FAU. The SERDAC Director, who reports to the policy board, is responsible for the implementation of policy and the day-to-day administration of the Data Center. SERDAC is located in PC-549, 552-2700.

## 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 fees. 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, contruction 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.


# Academic Affairs 

## 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.

## Division of Continuing Education

Strongly committed to meeting the educational, professional and social needs of the community, the Division of Continuing Education strives to extend the rich resources of the University beyond the confines of classroom and laboratory. Through creative programming, innovative research and community-oriented activities, the varied units within the Division serve a widely heterogeneous population. In the Spring of 1981, this Division is headquartered on the Bay Vista campus, AI, 111.

Operation under the Office of Academic Affairs, the Division of Continuing Education is composed of the following units: Department of Conferences, Department of Off-Campus and Weekend Credit Courses, The Elder's Institute, The State University System Center for Labor Research and Studies, The State University System External Degree Program, and The Women's Center.

## Department of Conferences

The Department of Conferences, through a variety of non-credit activities in the form of workshops, seminars, conferences and short courses, seeks to meet the needs of professional, para-professional, and lay groups or associations
as well as the community at large by integrating University resources with skilled professionals in the community in program development and implementation. The department has a number of on-going programs which are open to the public. They incfude:

Intensive English: Under the joint sponsorship of the Center for Language Studies, the College of Arts and Sciences and the Department of Conferences, a year-round Intensive English language skills program is offered. It is designed for International Students who wish to gain proficiency in English and who, upon completion of the program, may pursue academic studies at Florida fnternational University or at other U.S. Colleges and Universities. The program is open to all persons age eighteen (18) and over. No previous knowledge of Engfish is required for admission.

Leisure Activities: Sponsored by Intercollegiate Athletics and Recreational Sports the activities are offered each semester. The activities include Fencing, Fishing, Judo, Karate, Racquetball, Volleyball and Slimnastics.

The Other Semester: Offers a series of noncredit classes or short courses in areas such as crafts, exercise, dance and other areas of special interest and is sponsored by the Student Government Association.

Speed Reading: Reading Development, a speed reading course, is offered on the FIU Tamiami and Bay Vista Campus. Through Reading Development literalfy thousands of students have learned to read 3 to 10 times faster in their textbooks.

Summer Sports Camp: This program is offered in June and usually runs for three week sessions ending in August. The sports covered are: Baseball, Soccer, Tennis and Wrestling.

Continuing Education Units are awarded for participation in many of the above programs. CEU's are awarded on the basis of one CEU for each 10 clock hours of instruction. Records of CEU's will be permanently maintained by FIU.

For detailed information concerning any program offered by or through the Department of Conferences call 940-5646.

## Department of Off-Campus and Weekend Credit Courses

The Department of Off-Campus and Weekend Credit Courses offers a broad range of courses at locations in our Dade, Broward, and Monroe County service area. These courses are available to students who have been admitted to the University and are pursuing degree programs as well as to students who only wish to enroll in a specific course or courses. Fees for off-campus credit courses are the same as for on-campus courses. Grades earned become part of the student's transcript. Beginning Spring, 1981, this department is headquartered on the Bay Vista Campus, AI, 111.

Advance registration for off-campus credit courses is accomplished in the Department of Off-Campus and Weekend Credit Courses, Tamiami Campus, or by mail on a form provided by the department. Students may also register at the first class meeting or prior to the second class meeting. A minimum enrollment is required by the first class meeting to ensure its continuation.

Schedules of off-campus credit courses are available from the Department of Off-Campus and Weekend Credit Courses and are regularly updated. A partial schedule is available in the Office of Registration and Records during Registration Week.

Agencies, business, professional organizations, public and private schools may request specific credit courses to be taught at their lcoation provided that sufficient demand is established. In cooperation with the other University units, the International Affairs Center and the Department of Off-Campus and Weekend Credit Courses provides travel-study courses and brings degree and certificate programs to students in foreign countries.

## The Elder's Institute

The Elder's Institutes provides non-credit continuing education programs for the aduft learner on the Bay Vista Campus. The course content is primarify in the behavioraf and social sciences. Instructors are University faculty and community experts. The student body is made up of motivated learners seeking knowiedge and inteflectual stimulation for personal growth. There are also lectures, seminars and workshops in interest areas identified by the participants through surveys and other assessment instruments. The Institute staff also provide offcampus training for other community institu* tions as well as serve as a resource and referral base for the social service needs of the older American.

## The State University System Center for Labor Research and Studies

The Center for Labor Research and Studies provides educational services with and without academic credit, in the areas of labor and manpower studies, labor relations for management and union groups, and collective bargaining, with an applied research program designed to support instruction and consultation in the above areas. As a Type I Center of the State University System the Center is authorized by the Board of Regents to provide programs and services throughout the State of Fiorida. Through the External Degree Program and the
(Continued)

## Academic Affairs

School of Technology, an external baccalaureate program and certificate program in Industrial and Labor Relations is sponsored.

## The State University System External Degree Program

The External Degree Program, established by the Board of Regents in 1972, provides flexible undergraduate degree programs utilizing an educational contract with the following components:

1. Transfer Credit: The External Degree Program is designed for students who have completed two years or its equivalent of college level work.
2. Prior Learning Credit: Learning from prior non-college experiences may be translated into college credit. Faculty of the school or college a warding the degree as a result of an evaluation of the students learning as presented in a portfolio.
3. Directed Individualized Learning: Students may satisfy a portion of the degree requirements by undertaking individualized study with university faculty.
4. Formal Coursework: Students complete a portion of the degree work in regular on campus courses.
The State University System External Degree Program is a statewide program. Residents of Florida are eligible for the program and can take advantage of educational facilities throughout the site. Students may enroll in the program and begin their program of study at any time. The length of time required for each student to complete the undergraduate degree program will vary according to the amount of credit needed for completion and the speed at which the individual wishes to work.
In addition to regular tuition charged for the necessary course work to complete a degree program, an External Degree student is assessed a yearly fee of $\$ 200$. For additional information concerning the program, please call $940-5645$ at the Bay Vista Campus.

## The Women's Center

The Women's Center coordinates credit and non-credit courses dealing with areas of management, career and life planning, minority relations and international studies. Also, the university offers a Women Studies' Certificate Program which is interdisciplinary in nature. Other services available are in the areas of counseling, community relations and grant development. The Center coordinates activities with organization dealing with issues related to women concerns at the local, state and national levels.

## 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 Director and will have to be accepted by the Admission Evaluation 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 person, and his or her potential as a scholar and a professional.

For detailed information concerning the Fac ulty Scholars Program, contact Dr. Clair T. McElfresh, Director - DM 210 - 552-2893.

## Nursing Program

A selected number of non-degree credit courses for profesional nurses are offered at FIU. These courses are approved continuing education courses for the purpose of obtaining contact hours for the Florida Board of Nursing certification and relicensure requirements.

The courses are designed for students desiring upper division credits in nursing, with content related to the nursing process and management.
Non-credit continuing education conferences, workshops and seminars are offered by the Division of Academic Affairs, Department of Conferences, North Miami Campus. Further information is available by contacting:
Office of Academic Affairs
Bay Vista Campus
Florida International University
940-5700
Semester Hours
*Nursing Courses:
NUU 3431 Nursing in Evolving Health Care Delivery System
NUU 3210C
Nursing Process I
4
NUU 3222C
Nursing Process II 3
NUU 4211
(NUR 425) Decision Making in Nursing Practice
NUU 4630 Introduction to Nursing Research

| NUU 4230C | Nursing Process <br> Applied to |  |
| :--- | :--- | :--- |
| NUU 4231C | Nursing Process <br> Applied to Families | 4 |
| NUU 4232C | Nursing Process <br> Applied to <br> Communities | 3 |

*The Nursing credit courses taken at Florida International University are not in any way related to prerequisite or transfer courses of a future degree program in the nursing major.

## 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, "inhouse" 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 MidBiscayne 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.

# Academic Affairs 

## 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; 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.

## International Institute for Housing and Building

In its early planning, Florida International University dedicated itself to the development of academic, research and service programs which would be of direct benefit to the Southeast Florida community which it serves. In addition, the central importance of housing construction and development in Latin America, the Caribbean, and developing nations throughout the world was recognized. The International Institute for Housing and Building was established by the Department of Construction, School of Technology to provide expertise in the design, engineering architectural and management aspects of construction.

The Institute emphasizes the following activities related to housing environment.

1. To initiate and carry out research on problems related to building planning and construction, considering especially the technological, economic, tinancial and managerial aspects of the topic;
2. To generate funds from outside sources to finance theoretical and applied research activities;
3. To disseminate the results of research projects and encourage their implementation;
4. To provide technical services to private and official organizations with a special emphasis on service to the housing production industries of South Florida and in an international context;
5. To act as an interface between new developments in Housing Science and their application in the field of housing and planning in South Florida and to assess their relevance to the housing industry;
6. To collect documents, and disseminate
information on the latest advances in building science and housing;
7. To attract researchers of international stature and reputation to FIU and South Florida;
8. To develop a learning environment in the area of building sciences relevant to the needs of low and medium-income people of the world;
9 To collaborate with other research institutes, government agencies, and universities to increase the effect of its research program;
9. To organize scientific meetings, symposia conferences, seminars, and workshops at FIU and elsewhere;
10. To incorporate the use of alternative energy, energy conservation, and efficient use of natural resources in the planning of large projects, and to encourage the utilization of indigenous materials and labor sources;
11. To help implement programs to alleviate the impact of various disasters on housing including the coordination of disaster preparedness activities related to housing.
An underlying concern of the Institute is to establish an interdisciplinary environment in which many disciplines within the University and the community can arrive at feasible solutions to housing and building problems.

## 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.

## Libraries

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

Some 450,000 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 MiamiDade 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 Services

The Media Services Division of Florida International University was established to provide instructional media services to laculty, staff and students. Briefly, the services offered by Media Services are encompassed by five departments:

1. Equipment Distribution provides a large variety of audiovisual equipment for use by the University.
2. Graphics prepares all kinds of artwork, including graphs, illustrations, charts and posters, for faculty and staff.
3. Photography provides photographic services to laculty and staff for educational and publicity purposes.
4. The Faculty/Student Production Center provides an audiovisual lab area and instruction in the use of audiovisual equipment for faculty and students to produce a variety of audiovisual aids on their own.
(Continued)

# University Relations and Development 


#### Abstract

5. Learning Resources produces multi-media programs (video tapes, films, slide tapes) for FIU faculty and staff. All of these departments have office on the Tamiami Campus. The Bay Vista Campus Media Center maintains an Equipment Distribution Department and limited production facilities for that campus. Services not available through that campus can be obtained through the appropriate office on the Tamiami Campus.


## 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.

## 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:

## 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. Tbe 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
M.A., International Studies

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
I-Cuban Studies Certificate
2 - Jewish Studies Certificate
Caribbean-Latin American Studies Certificate Program
1 - Academic Certificate in Latin American/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
School of Education

## Bilingual Education

## Comparative Education

International Development Education
In addition, 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 inter-
national community. The staff of the Center serves 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, serving three 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.

## University Relations and Development

The division fosters internal and external communications and involvement in a variety of ways and has the responsibility of informing interested publics with current information about the University and our impact in the communities we serve. Six interrelated departments provide University-wide services in the areas of public information, publications, the coordination of special events, alumni affairs and development and general university public relations on both the Tamiami and Bay Vista campuses. The division coordinates all private fund-raising for university support and is the university liaison with the FIU Foundation, Inc.

# Planning and Analysis 

# Florida's Statewide Course Numbering System 

## Department of Development

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 Foundation.

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. Auxiliary units of the Foundation include:

FIU Society of the Arts was establihsed to encourage interest and support in the fine arts programs of the University. Persons from the Greater Miami area seek funding for student scholarships and the betterment of the cultural arts.

The Sunblazers Club seeks financial aid and support for the atheltic programs of the University with the goal of providing a superior sports and recreation program for University students.

## Department of Alumni Affairs

Although FIU is still a young institution, it has graduated over 21,000 students and nearly 74,000 persons have taken courses at the University. The Alumni Association, an auxiliary of the FIU Foundation, Inc., maintains liaison with FlU alumni to solicit their support for the University's growth, to encourage alumni to continue their post-secondary education and to establish a series of projects, activities and services of mutual benefit to the alumni and the University.

## Department of Information Services

Writers and media specialists in this department work with media on a local, state and national level to inform the public about the University and about events and activities. They distribute daily news releases to all professional media, publish a weekly newsletter, "Vistas," which is disseminated to both the internal and external communities and maintain the University Speakers Bureau to provide high-quality representatives of the University on a wide variety of topics for any community group or organization. In addition, the department coordinates all University advertising.

## Department of Publication Services

Creative graphic design and publications production personnel in this department coor-
dinate 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. Special Events also schedules and coordinates high visibility events for the University including FlU's sponsorship of the annual Orange Bowl Marathon.

## Office of Minority Affairs and Women's Concerns

The office reports to the President and 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. We also administer the State University System Scholarship Program and the internal Minority Scholarship Program. In addition, the office maintains a liaisonal relationship with state and federal agencies that deal with EEO and Affirmative Action.

## Planning and Analysis

This Division is responsible for administrative computing, budget and resource planning, and the development of the Scope and Mission Statement of the University.

## University Office of Computer Systems and Services

The Office has responsibilities over computer operations and the design and implementation of administrative systems. Working closely with university users needs to insure they are identified and placed in priority order. Technical support is provided to offices to evaluate current procedures and affect necessary changes.

## University Office of Budget Planning

Through the coordination and preparation of the legislative budget request, internal operating budgets, and the analysis of expenditures, the Office serves the Unixersity by monitoring and analyzing its fiscal resources. The office serves as a focal point in the development of fiscal plans and strategies taking into consideration the academic plans of the University.

University Office of Resource Analysis
The Office conducts analyses related to the internal operations of the University. It coordinates the preparation of the Scope and Mission Statement of the University working closely with the Vice President for Academic Affairs. The Office acts as the "Data Administrator" and is responsible for coordinating the transmittal to the Florida Board of Regents of requested information. The Office publishes a variety of reports which describe the activities of the University.

## 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 identifiying 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.
(Continued)

# Florida's Statewide Course Numbering System 

## 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 post-secondary 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," "Ceneral 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 OCB 013C (lecture
with lab and lab combined)
Therefore, OCB 013 C 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.

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:

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

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

A complete inventory of taxonomic listings, equivalent and unique courses has been made available to each academic department of every institution in the 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 leve! 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.

## Authority For Acceptance of Equivalent Courses

The following amendment to Section 6A. $10.24(7)$ of the Articulation Agreement was approved by the Community Colleges Council on Instructional Affairs, the Presidents Council, the Division of Community Colleges, the State University System Council of Vice Presidents for Acadernic Affairs the Council of Presidents and the Board of Regents. It was adopted by the State Board of Education on March 7, 1978: "... Students who earn credit in a course determined by the appropriate faculty task force to be

[^2](Local titles are used for each particular course. The last three numbers are used to indicate equivalency:)

# Administration and Staff 

equivalent and which is published in the statewide course numbering system, and who later transfer to another institution within the system can transfer and use the credit in that course at the receiving institution for the same purpose as that course can be used by native students who complete the course at the receiving institution."

## Administration, and Staff

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Martin, Ronald W., M.L.S. (Florida State University), Curriculum Laboratory Librarian McElfresh, Clair, D.M.A. (Case Western Reserve University), Director, Faculty Scholars Program
McSherry, William, M.S. (Florida International University), International Student Advising
Mead-Donaldson, Robert, M.A., M.L.S. (Florida State University), Associate Catalog Librarian
Mead-Donaldson, Susan, M.L.S. (Florida State University), Head, Circulation Dept.
Menendez, Miguel, M.L.S. (Florida State University), Head Reference Librarian
Meneses, Lourdes, B.A.(Florida International University), Director of Registration and Records
McCammon, Leslie, M.A.L.S. (Florida State University), Collection Development Librarian, FIU at North Miami, Library
Mette, M.A., B.F.A. (Florida International University), Director, Instructional Graphics, Media Services
Miskovic, Linda S., M.A. (Hestern Illinois University), Coordinator of Womens Sports and Womens Volleyball Coach
Mitchel, Susan, M.S. (University of Miami), Director, Resource Analysis
Montour, Gary, M.S. (University of Buffalo), Coordinator of Tennis and Recreational Sports
Morrison, Dan, B.A.(Biscayne College), Assistant Intercollegiate Athletics
Morrison, Kathy, M.S.N. (University of Miami), Coordinator of Student Health Services
Olson, Emma, A.A. (Miami-Dade Community College), Financial Aid Counselor

# Administration and Staff 

Palmore, Isaiah, Ed.D. (Nova University), Interim Dean, Division of Continuing Education
Perez, Marta, B.S. (Florida Internationat University) Associate Director of Registration \& Records
Price, Danny, M.S. (Florida International University), Basebatt Coach
Puckett, Elizabeth, M.Ed. (Virginia State University), Learning Resources Speciatist
Puroff, Thomas, Ed.D. (University of Tennessee), Co-Director, Institute on Sexism, University Outreach and Services
Radencich, John R., A.M.L.S. (University of Michigan), Catalog Librarian, Library
Rego, Maria, B.A. (Florida International University), Assistant Director of Registration \& Records
Remington, John, Ph.D.(University of Michigan), Director, Center for Labor Research and Studies
Riley, Thomas D., M.A.(Indiana University of Pennsytvania), Student Activities Director
Ritchey, Ozzie, M.S. (Florida International University), Assistant to Vice President, Student Affairs
Rodriguez, Debbie, M.S. (Florida International University), Counselor
Rodriguez, Josefina H., M.L.S. (Emory University), Documents Librarian, Library
Rodriguez, Robert D., M.S.L.S. (Florida State University), Assistant Catalog Librarian
Russell, Joan T., J.D. (Washington University), Legal Services Director

Russell, Patrick J., M.B.A. (Indiana University), Cooperative Education and Placement Director
Russo, Cindy, M.S. (Ftorida International University), Women's Basketbatt Coach
Sadoff, Doris, B.A. (University of Miami), Director of Purchasing Services, Administrative Affairs
Sarasti, Ana, M.S. (Florida International University), Director of Financial Aid
Saxon, Hanna, B.A.(University of Wisconsin), Vice President, University Relations and Development
Shave, Robert, M.S. (Ftorida International University), Golf Coach
Skellings, Edmund G., Ph.D. (University of Iowa), Director, International Institute for Creative Communication
Smith, Susan, M.S. (University of Florida), Liaison Officer
Spence, Terry L., M.B.A. (Kent State University), Dean, University Relations
Stack, Robert E., Ph.D. (St. Louis University), Catalog Librarian, Library, North Miami Campus
Sudano, Barbara A., M.L.S. (University of Illinois), Curriculum Laboratory Librarian
Thomas, Henry B., D.P.A. (University of Southern Catifornia), Vice President for Student Affairs
Trionfo, Kathryn, M.R.C. (University of Florida), Coordinator, University Counseling and Handicapped Student Services Tripp, Margaret S., M.S.L.S. (Emory Univer-
sity), Assistant Reference Librarian, Library
Wade, Howard, M.S. (Seton Hall University), Director, Retention and Learning Skitts
Walesh, Sidney L., M.B.A. (University of Wisconsin-Madison), Director, University Budget Office
Walker, Rich, M.S. (Bowling Green University), Basketball Coach
Watson, Rose, Ph.D. (University of Miami), Director of International Student Services
Waugh, Arthur, M.S. (Florida International University), Director, Media Services Division
Weiss, Susan, M.L.S. (Southern Connecticut State College), Assistant Reference Librarian
Winter, Robert, Ph.D. (University of Illinois), Executive Director, Planning and Analysis
Wolfe, Gregory Baker, Ph.D. (The Fletcher School of Law and Diplomacy), President
Young, Betty Bigby, M.S. (Brooklyn College), Director of University Relations, Bay Vista Campus - University Relations
Younkin, William F., M.Ed. (University of Miami), University Registrar
Zeldman, Diann, Ed.D. (Nova University), Associate Director of Undergraduate Studies
Zelman, Jacqueline M., M.S. (Simmons College), Catalog Librarian, Library

# College of Arts and Sciences 



## Introduction

## College of Arts \& 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's 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 or religious studies). physical sciences (physics, chemistry, earth sciences, environmental studies), political science, psychology, sociology/anthropology, and visual arts.

The College has academic majors leading to master's degrees in biology (jointly with FAU), chemistry (jointly with FAU), community psychology, computer science, economics, environmental and urban systems (jointly with School of Technology), mathematical sciences, physics (jointly with FAU), and psychology (jointly with FAU).

The College also offers collegiate programs of study leading to bachelor's degrees in humanities and liberal studies. Students may earn certificates, authorized by the College in American Studies, Consumer Affairs, Environmental Studies, Ethnic Studies, Latin American and Caribbean Studies, Linguistics Studies, Marine Science, Western Social and Political Thought, and Women's Studies.

## 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.

In addition to the degree requirements for departmental programs of study, each candidate for the bachelor's degree must satisfy the following college-wide requirements:
a) 9 semester hours of elective credits to be earned through course work outside the major discipline; 6 semester hours of which are to be taken outside the department sponsoring the program.
b) A grade of C or better to be obtained in all courses required for the major.

Moreover, students are encouraged to consider the possibility of taking a minor or a cer-
tificate program besides their major, in order to enhance the liberal quality of their education.

## Anthropology Major

Anthropology is part of the department of Sociology and Anthropology and all information should be obtained from that Department's office. See Sociology/Anthropology Major for program and course descriptions.

## Sociology/Anthropology Major

Anthony Maingot, Chairperson and Professor James Mau, Dean, College of Arts and

Sciences and Professor Jerry Brown, Associate Professor Stephen Fjellman, Associate Professor
Randy Kandel, Associate Professor Barry Levine, Associate Professor William Osborne, Associate Professor Shearon Lowery, Assistant Professor William Vickers, Assistant Professor

## LOCATION: Tamiami Campus <br> DEGREE: Bachelor of Arts

LOWER DIVISION PREPARATION:
For Admission as an upper division student you should have 60 semester hours or the Associate of Arts degree from a community college (work should be pre-Arts and Sciences or preAnthropology 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. If these courses are not completed prior toentry to FIU, they will be required as a part of the upper division program.
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:

Semester Hours
Required Courses: 27

## Core Courses:

ANT 3086
Anthropological Theories3

SOC 3610 Sociological Theories 3
SOC 3500 Research Methods 3
SSI 3303
Ethical Issues in Social Science Research3

## AREA COURSES: either

Anthropology or Sociology 15 Electives: with the approval of the faculty advisor


Tracks: The Department of Sociology / Anthropology offers the following academic tracks: 1) General Sociology / Anthropology; 2) Graduate Training; 3) Human and Social Services; 4) Community Research and Public Policy; 5) Communications and Arts; 6) Social Psychology. A student with special interests may consult faculty advisors to plan an individualized program of study.
A grade of $C$ or better in all courses required for the major is necessary for graduation.
Field Work Experience - A meaningful under standing 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; 15 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; DHE - Demography \& Human Ecology; HUS - Human Services; LIN - Linguistics; MAF - Marriage \& Family; SOC - Sociology; SSI - Social SciencesInterdisciplinary.

## ANT 3000 The Scope of Anthropology

An introductory survey of the major areas of anthropological inquiry, including social, cultural, physical and applied anthropology, as well as archaeology and linguistics. An examination of the anthropological perspective.

## ANT 3086 Anthropological Theories

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

## Anthropology

particularism; Freud and culture and personality, and Malinowski and functionalism.

## ANT 3144 Prehistory of the Americas

Early man in the Americas is examined through archaeological records.

## ANT 3241 Myth, Ritual and Mysticism

A survey of anthropological approaches to the study of myth, ritual, and mysticism, as religious and symbolic systems. The social and psychological functions of myth and ritual in primitive and complex societies will be compared.

## ANT 3251 Peasant Society

Comparative study of peasant societies with emphasis on the concepts of folk community, traditional culture, and modernization. Data on peasantry in Latin America and other culture areas will be reviewed.

## ANT 3263 World Food Supply

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

ANT 3302 Male and Female: Sex Roles and Sexuality
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

The application of classical anthropological methods and concepts to the analysis of contemporary American culture. Investigation of a unique cultural scene will involve the student in field work and the preparation of an ethnographic report.

## ANT 3403 Cultural Ecology

Systems of interaction between man and his environment; the role of social, cultural and psychological factors in the maintenance and disruption of ecosystems; interrelations of technological and environmental changes.

ANT 3435 The Individual in Anthropology (3) Study of the individual in his socio-cultural context; the place of the individual in anthropological theory; and the influence of culture on the individual through the use of biography, autobiography, journals, diaries, novels, and narratives.

## ANT 3442 Urban Anthropology

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

## ANT 3476 Movements of Rebellion and Revitalization

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

## ANT 3500 Origin and Dispersion of Man and Woman

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

## ANT 3512 Social Biology

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

## ANT 4007 The Organizer

The dynamics of mass organizations, responsible for major social transformations, will be examined in comparison with those of corporate and public interest organizations. Strategies of leadership (Gandhi, Hitler, Mao, King), team building, goal setting, and negotiating will be explored through workshops.

ANT 4224 Tribal Art and Aesthetics
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 4261 Environmental Revitalization

This course develops a cultural ecological framework for analyzing the relationship between food productions, land use, energy consumption and public policy in both local and international contexts.

## ANT 4211-4360-4361-4328 Area Studies

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

## ANT 4273 Law and Culture

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 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 4314 The American South: A Regional Subculture <br> (3)

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 4324 Mexico
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

A survey of the culture and intellectual achievements of the ancient Maya civilization of Mesoamerica. Course includes: history and social-political structure, archaeology, agriculture and city planning, mathematics, hieroglyphics, astronomy, and calendars. No prerequisites.
ANT 4329 Research in Maya Civilization
Concentration is on hieroglyphic research with the inscriptions and Maya codices (Dresden, Madrid and Paris) as resource material. Students will be instructed in research techniques, including calendric counting procedures, correction of scribal errors, reconstruction of almanacs and methodology of decipherment. Supervised group projects will apply techniques to original research and reporting of conclusions. Prerequisite: ANT 4328.

## ANT 4332 Latin America

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
An ethnological survey of native cultures and of the processes of culture contact and conflict in the Caribbean and Circum-Caribbean region.
ANT 4352 African Peoples and Cultures
This course includes a survey of the cultures and civilizations of sub-Saharan Africa. It includes discussions of history, geography, sociopolitical structures, religion, art, music, and oral literature. No prerequisite.
ANT 4433 Psychological Anthropology
Cross-cultural studies in cognition, possession states, myth making and world view are examined. The interface of anthropology, psychology and psychiatry is reviewed.
ANT 4451 Racial and Cultural Minorities (3) The study of selected ethnic and cultural groups, with particular emphasis on patterns of interethnic and intercultural relationships. Minority groups studied may include AfroAmericans, American Indians, Chicanos, Cubans, women, senior citizens or prisoners.
(Continued)

## Biological Sciences

ANT 4454 American Indians Today
An examination of the history of the American Indians since European contact, and their socio-cultural patterns as a contemporary American minority group.
ANT 4460 Hallucinogens \& Culture
Cross-cultural examination of the political, religious, and socio-cultural factors related to altered states of consciousness, including dreams and images. Applications to contemporary psychology are explored.

## ANT 4469 Special Topics in Medical Anthropology

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

## ANT 4705 Applied Anthropology

The theory and practice of applied anthropology; cultural factors and planned community change; implications of case data for public policy. Emphasis will be placed on the processes of economic development and culture change in developing nations.
ANT 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
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 5908 Directed Individual Study
(VAR) Supervised readings and/or field research and training. May be repeated.
ANT 5915 Directed Field Research
(VAR)
Permission of instructor required.

## Biological Sciences Major

Martin L. Tracey, Associate Professor and Chairperson
Abraham M. Stein, Professor
Chun-fan Chen, Associate Professor
Leon A. Cuervo, Associate Professor
George H. Dalrymple, Associate Professor
Walter M. Goldberg, Associate Professor
John C. Makemson, Associate Professor
Gerald L. Murison, Associate Professor
David W. Lee, Assistant Professor
Case K. Okubo, Assistant Professor

George Taylor, Assistant Professor
Carlo Ambrosino, Research Scientist
Patsy A. McLaughlin, Research Scientist
Josel Szepsenwol, Research Scientist
Anitra Thorhaug, Research Scientist
Jeffery Marcus, Research Associate
LOCATION: Tamiami Campus only

## DEGREE: Bachelor of Science

*Students interested in teacher certification refer to the School of Education.

## LOWER DIVISION PREPARATION:

Reguired Courses: 6 semester hours of lectures and 2 semester hours of laboratories in each of the following areas: general biology, general chemistry, general physics and organic chemistry; 9 semester hours in college algebra, trigonometry and analytical geometry.
Recommended Courses: foreign language, and calculus.
Remark: 8 semester hours above the introductory level in biology may be counted toward the upper division major.

## UPPER DIVISION PROGRAM:

| Semester Hours |  |  |
| :---: | :---: | :---: |
| 1. PCB 3043 | Fundamentals of |  |
|  | Ecology | 3 |
| 2. PCB $3513+\mathrm{L}$ | Genetics | 4 |
| 3. BCH $3033+\mathrm{L}$ | Int. Biochemistry |  |
|  | Biomolecules OR | 4 |
| PCB 3203+L | Cell Physiology | 4 |
| 4. PCB 4723+L | Animal Physiology OR | 4 |
| BOT 4504+L | Plant Physiology | 4 |
| 5. $2003603+\mathrm{L}$ | Embryology OR | 4 |
| PCB 4254 | Developmental Biology 3 |  |
| 6. BSC 4931 | Senior Seminar | 1 |
|  |  | 19-20 |
| 7. Biological Sciences Electives ${ }^{1.2,3}$ |  | 10 |
| 8. Mathematics | Courses chosen |  |
|  | from: MAC 3411, |  |
|  | MAC 3412, STA |  |
|  | 3122, STA 3123, |  |
|  | STA 3161 | 6-8 |
| 9. Electives |  | 11-25 |
|  |  | 60 |

${ }^{1}$ APB 3253, BOT 3823 , BOT 3800 , BSC 3023 , BSC 3033, BSC 3913, BSC 3949, BSC 4914, BSC 4949, BSC 6916, MCB 3000 and PCB 3700 are not applicable to this requirement.
${ }^{2}$ Electives will be chosen in consultation with faculty advisor.
${ }^{3}$ One upper division course in botany from an approved list, and at least two courses at the 4000 or 5000 level are required for graduation. A grade of $C$ or better in all courses required for the major is necessary for graduation.

## SPECIAL PROGRAMS

Bachelor of Science with Honors
Requirements:
Admission to the Honors Program:
a. Permission of the Department. Application should be made after the second semester at FIU and two semesters 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.
Certificate Program in Marine Sciences:
See section on certificate programs under College of Arts and Sciences.
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 3000 Introductory Microbiology
PCB 3513 Genetics
PCB 3873 Biological Foundations of
Behavior
$Z 003731$ Human Anatomy
ZOO 3743 Neuroscience
PCB 3700 Foundations of Human Physiology
(PCB 3702, PCB 3703, PCB 3704, and PCB 4701 are options for students who desire a more sophisticated course in Human Physiology). There are no prerequisites for BSC 3023, APB 3253, PCB 3701, ZOO 3731 and MCB 3000

# Biological Sciences 

Master of Science in Biological Sciences Cooperative program brochure available in Biological Science office.

## 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. Lectures/Laboratories. Laboratories should be taken concurrently with or subsequent to lectures. Students should register for each separately.
APB 3253 Biological Basis of Human Sexuality
The physiological development of the human organism as a sexual being will be treated, with a review of the psycho-social and psycho-sexual bases of human personality. Patterns of adult sexual behavior will be explored, with emphasis on achieving healthy human sexual attitudes.

## BCH 3033 Introductory Biochemistry-Biomolecules

## BCH 3033L Biochemistry Laboratory

Introduction to the chemistry of proteins, carbohydrates, lipids and their constituents. Principles of enzymology, bioenergetics and metabolism. Prerequisites: Organic Chemistry 1 and 11 or permission of instructor.

## BCH 3034 Introductory

Biochemistry-Metabolism
Metabolism of carbohydrates, lipids and nitrogenous substances; electron transport and oxidative phosphorylation. Prerequisites: organic chemistry 1 and 11 or permission of instructor.
BCH 5315 Biochemistry I
Chemical reactions and macromolecular properties of proteins, nucleic acids and polysaccharides. Genetic and evolutionary aspects of protein structure. Permission of instructor.

## BCH 5316 Biochemistry II

Comparative biochemistry: metabolism and regulation of metabolism in microorganisms, plants and animals; mechanisms of enzyme reactions. Prerequisites: BCH 3033 or equivalent or permission of instructor.
BCH 6505 Enzyme Chemistry
Physical and chemical properties of enzymes. Review of modern analytical technique in measurement of enzymatic reactions. Discussion of selected enzyme systems. Permission of instructor.
BOT 3353 Morphology of Vascular Plants (3) BOT 3353L Plant Morphology Laboratory (I The origin and evolution of land plants. Com-
parison of morphology, anatomy, reproduction and fossil records of major groups. Prerequisites: 2 courses in Biology.
BOT 3663 Topics in Tropical Botany
BOT 3663L Tropical Botany Laboratory
How environmental factors affect the distribution of vegetation, morphology and physiology of plants in the tropics. Prerequisites: 1 course in Biology or permission of instructor.
BOT 3723 Plant Taxonomy
An introductory course in higher plant taxonomy. Includes angiosperm evolution, principles of plant taxonomy, nomenclature, modern systems of angiosperm classification. Prerequisites: General Biology, General Botany or permission of instructor.

## BOT 3800 Plants and People

(3)

A history of mankind's study and use of plants, and a survey of plants of economic importance.

## BOT 3823 Horticulture

(3)

Theoretical and practical problems of plant growth and production. Prerequisite: 1 course in plant sciences or advanced Biology or permission of instructor.
BOT 4504 Plant Physiology
BOT 4504L Plant Physiology Laboratory (1) Plant growth and metabolism in relationship to environment. Prerequisite: Organic Chemistryl.
BOT 5665 Topics in Tropical Plant Science (3)
BOT 5665 L Topics in Tropical Plant Science
Laboratory A survey of subjects of current interest in tropical botany: physiological ecology, reproductive biology, architecture and demography. Includes a week of field work in a tropical environment and local field studies. Prerequisites: 2 courses in Botany or permission of instructor.

## BOT 6536 Plant Physiology and Biochemistry

BOT 6536L Plant Physiology and Biochemistry Laboratory
Selected topics of current interest including transport, mechanisms of hormone action, photosynthesis and secondary metabolism. Lecture and conference. Prerequisite: Bot 4504 or permission of instructor.

## BSC 1010 General Biology I

BSC 1010L General Biology Laboratory (1)
Biomolecules, cells, energy flow and a survey of organismal biology.

## BSC 1011 General Biology II

## BSC 1011L General Biology Laboratory

(1)

Genetics, development, physiological integration, botany behavior and population biology.

## BSC 3023 Human Biology

(3)

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. Primarily for nonscience majors.

BSC 3033 Issues in Biology
Impact on society of recent developments in biological research. The course provides a general background for the intelligent discussion of problems related to states of disease, senescence and death, control of the growth of the population, genetic engineering and control of behavior.

## BSC 3913 Research Laboratory

Independent laboratory study in a project or projects of the student's choice. Registration by consultation with instructor. May be repeated for additional credit.
BSC 3933 Topics in Biology
An intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum.
BSC 3949 Cooperative Education in Biology (3) A student majoring in biological sciences may spend several terms fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Co -op Education and major department.
BSC 4104 Experimental Biology
(1-3)
Laboratory techniques used in biological research. The techniques covered will depend upon the instructor. May be repeated for credit with different instructors. Prerequisite: permission of instructor.
BSC 4931 Senior Seminar
An exploration of various research works in biological sciences. Oral presentation by the students is required.
BSC 4934 Topics in Biology
(1-3)
An intensive study of a particular topic or limited number of topics not otherwise offered in the curriculum.
BSC 4949 Cooperative Education in Biology (3) A student majoring in biological sciences may spend several terms fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Co-op Education and major department.

## Biological Sciences

## BSC 5415 Animal Celis in Culture

(5)

The biology of animal cells cultured in semisynthetic media will be studied. Topics considered will be cell nutrition and growth, cell cycle analysis, cell transformation and differentiation, heterokaryons and somatic cell genetics. Prerequisites: Biology majors or consent of instructor.

## BSC 5931 Graduate Seminar

(1)

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

## BSC 5935 Topics in Biology

An intensive study of a particular topic or limited number of topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Senior or graduate standing.
BSC 6936 Topics in Biology
Same descriptions BSC 5935. Prerequisite: Graduate standing.

## MCB 3000 Introductory Microbiology

MCB 3000L Introductory Microbial
Laboratory
Basic concepts of microbes as pathogens, food spoilage and fermentative organisms. Microbial relationships to immunology, sanitation, pollution and geochemical cycling. Not applicable for majors in Biological Sciences or Medical Technology.

MCB 3023 General Microbiology
MCB 3023L General Microbiology Laboratory
Introduction to the principles and techniques of microbiology, genetics, taxonomy, biochemistry and ecology of microorganisms. Prerequisites: 1 semester of Organic Chemistry; 2 courses in Biology.

MCB 5505 Advanced Virology
MCB 5505L Advanced Virology Laboratory (1) Principles and methods of study of bacterial, plant, and animal viruses. Molecular aspects of viral development virus pathogens and carcinogens. Prerequisites: Biochemistry, Genetics, and Organic Chemistry.

## MCB 5735 Marine Microbiology <br> MCB 5735L Marine Microbiology Laboratory

Physiological-ecological study of the distribution in situ activity and biology of marine bacteria; public health significance of pathogens and microbial toxins conveyed to man; diseases of marine animals. Prerequisites: General Microbiology.

OCB 4010 Biological Oceanography
The basic aspects of biological, geological,
chemical and physical oceanographic processes as they relate to marine organisms. Prerequisites: 8 semester hours of Biology.

## OCB 4674L Techniques in Biological Oceanography

A laboratory course designed to acquaint the student with biological sampling techniques at sea. Shipboard experience will be required as part of the course. Prerequisites: concurrent registration in OCB 4010; ZOO 3253 or a previous course in marine biology; registration in the Marine Science certificate program and permission of instructor.

## OCB 5635 Coral Reef Ecology

OCB 5635L Coral Reef Ecology Laboratory (1) Zoogeography, ecology and zonation, morphology, and paleontology of coral reefs around the world with emphasis on Caribbean forms. Growth, physiology, productivity as well as effects of predation, competition and pollution on coral reefs are also discussed.

## PCB 3043 Fundamentals of Ecology <br> PCB 3043L Fundamentals of Ecology Laboratory

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 3203 Cell Physiology

PCB 3203L Cell Physiology Laboratory
A discussion of the physiology of cells from the biochemical and biophysical points of view. Enzyme structure and function, cellular metabolism and its regulation. Energy transductions and conservation, transfer of information: electrical and chemical signals. Cell cycle and cell division. Prerequisites: 8 semester hours of General Biology, General Physics, and Organic Chemistry.
PCB 3510 Issues in Genetics-recDNA and IQ (3) 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. Suitable for non-science majors.
PCB 3513 Genetics
PCB 3513L Genetics Laboratory
Mendelian inheritance and introduction to molecular genetics.
PCB 3612 Sociobiology
A study of the population genetics-ethology based explanations of social behavior in animals.

## PCB 3700 Foundations of Human Physiology

(3)

Functional survey of the organ systems of the human body. Intended primarily for non-science majors.

PCB 3702 Intermediate Human Physiology (3) PCB 3702L Intermediate Human Physiology Laboratory
(1)

Functions of the human body and the physicochemical mechanisms responsible for each organ's function. Prerequisite: General Biology.

## PCB 3703 Human Physiology 1

PCB 3703L Human Physiology I Laboratory
Basic facts and concepts relating to the physiology of cells and nervous, muscular, and cardiovascular systems, with emphasis on regulatory mechanisms and abnormal physiology. Prerequisites: One year of Biology or Zoology; Chemistry, and Physics.

## PCB 3704 Human Physiology II <br> PCB 3704L Human Physiology II Laboratory

Physiology of respiratory, gastrointestinal, excretory, endocrine and reproductive systems. Continuation of PCB 3703. Prerequisites: One year of Biology or Zoology; Chemistry, and Physics.

PCB 3873 Biological Foundations of Behavior
(3)

Biological bases of behavior emphasizing neural and hormonal mechanisms of integrated behavior. Lecture, conference, library or laboratory projects.

PCB 4044C
Chemical and physical properties of standing and flowing freshwater systems; ecophysiology and interactions of the flora and fauna in relation to abiotic factors under oligotrophic to eutrophic conditions.

## PCB 4233 Immunology

PCB 4233L Immunology Laboratory
Fundamentals of immunology including antibody structure, immunopathology, molecular recognition at cell surfaces and immunological aspects of cancer biology. Prerequisites: General Microbiology or permission of instructor.

PCB 4254 Developmental Biology
Comprehensive survey of principles of development and critical analysis of methods used to study these problems. Prerequisite: PCB 3513 and PCB 3203 or BCH 3033.

## PCB 4324 Terrestrial Ecology

PCB 4324L Terrestrial Ecology Laboratory (1
A comprehensive survey of the planet's major terrestrial ecosystems and their characteristics.

## Chemistry


#### Abstract

Emphasis on human impact and management of


 terrestrial biological resources. Specific treatment of zoogeography, pest control, agricultural ecology and management of wild areas. Prerequisites: One year of Biological Science and Ecology or permission of instructor.
## PCB 4524 Molecular Biology

PCB 4524L Molecular Biology Laboratory (1) An advanced treatment of nucleic acid and protein biochemistry. Emphasis will be placed on synthesis of macromolecules with topics to cover materials of recent interest in molecular genetics, such as genetic engineering, gene splicing and restriction enzymes. Prerequisites: Biochemistry or Genetics.

PCB 4673 Evolution
PCB 4673L Evolution Laboratory
A study of the synthetic theory of evolution, its historic and experimental justification and the mechanisms of natural selection. Prerequisites: Genetics, Ecology or permission of instructor.

PCB 4701 Human Systemic Physiology
Selected topics in human physiology with emphasis on topics of clinical significance. Prerequisites: Introductory human physiology or a college level course in biology or chemistry.

## PCB 4723 Animal Physiology

PCB 4723L Animal Physiology Laboratory (1) Advanced study of physiological mechanisms employed by animals to maintain function of the organ systems and to interact with the environment. Prerequisites: Organiç Chemistry and Cell Physiology or Biochemistry.

PCB 5195 Histochemistry/Microtechnique
PCB 5195L Histochemistry/Microtechnique Laboratory
Theory of staining, fixation and embeddiment of biological materials examined by light microscopy. Special histochemical/cytochemical and antoradiographic procedures. Prerequisites: Introductory Biochemistry or Cell Physiology; a course in Histology is recommended.
PCB 5205 Cell Physiology and Biophysics (3) 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 contractile mechanisms. Transfer of information from cell to cell. Prerequisites: Calculus and Physical Chemistry or permission of instructor.
PCB 5259 Topics in Developmental Biology (3) Molecular and cellular mechanisms in the development of plants and animals. Prerequisites: Senior status or permission of instructor.
PCB 5615 Molecular and Organismal Evolution
The evolutionary relationships among nucleotides and proteins as well as the process-
es which yield these relationships are examined. The possible molecular events leading to speciation will then be considered. Prerequisites: Genetics and Biochemistry.

## PCB 5835 Neurophysiology

PCB 5835L Neurophysiology Laboratory (1) Comparative neurophysiology; physicochemical mechanisms of resting and action potentials; synaptic transmission; neural coding and integration; sensory-motor function and neurophysiological basis of behavior. Prerequisites: Biochemistry, Cell Physiology, Calculus.

## PCB 5936 Topics in Genetics

Areas of genetics not covered in most introductory courses will be examined: for example cytoplasmic inheritance, immunogenetics, eukaryotic genes, and population genetics. In addition, selected areas such as chromosome structure and recombination may be examined in depth. Prerequisites: PCB 3513 and PCB $3203, \mathrm{BCH} 3033$ or BCH 3034.

PCB 6175 Biological Electron Microscopy (6) Principles and techniques of transmission and scanning electronmicroscopy as applied to biological materials. Lecture-Laboratory combination, enrollment limited. Prerequisite: Permission of instructor.

## ZOO 3253 Marine Invertebrate Zoology <br> ZOO 3253L Marine Invertebrate Zoology Laboratory

Taxonomy, anatomy, development, physiology and ecology of major invertebrate phyla, excluding insects. Emphasis on marine invertebrates. Prerequisites: One year of biology or permission of instructor.

## ZOO 3513 Ethology

The course is designed to introduce the student to the biological basis of behavior and to the ecological and evolutionary consequences of various behaviors. Prerequisites: One semester of zoology or two semesters of general biology.

## ZOO 3603 Embryology

ZOO 3603L Embryology Laboratory (2)

Animal morphogenesis. Laboratory must be taken with lecture. Prerequisites: One year of general biology with laboratory or general zoology and general botany with laboratory.

## ZOO 3731 Human Anatomy

ZOO 3731L Human Anatomy
Demonstration

Survey of organ systems of the human body with major emphasis on the skeletal, muscular and peripheral nervous system. Demonstrations of the prosected human cadaver. Prerequisites: One year of general biology with laboratory or general zoology and general botany with laboratory.

ZOO 3733 Human Gross Anatomy I
(3)

ZOO 3733L Human Gross Anatomy I
Laboratory
Structure and function of various tissues, organs and organ systems of the human body. Dissection of human cadaver material to reveal the relationships of the various organ systems of the body. Prerequisites: One year of general biology with laboratory or general zoology and general botany with laboratory.

## ZOO 3734 Human Gross Anatomy II <br> ZOO 3734L Human Gross Anatomy 11 Laboratory

Continuation of ZOO 3733. Prerequisite: One course in physiology; one course in anatomy.

## ZOO 4424 Herpetology

Study of the biology of reptiles and amphibians with emphasis on the natural history and ecology of local species. Prerequisites: One year of Biological Sciences and Ecology or permission of instructor.

## ZOO 3753 Histology

ZOO 3753L Histology Laboratory
Microscopic anatomy of cells, tissues and organs. Prerequisite: General Introductory College Biology and Organic Chemistry.

## ZOO 4743 Neuroscience

ZOO 4743L Neuroscience Laboratory
Structure and function of the human nervous system. Dissection and demonstration of the various parts of the human brain. Prerequisites: One course in physiology plus Human Gross Anatomy I and II.

## ZOO 5265 Biology of Crustaceans <br> ZOO 5265L Biology of Crustaceans <br> Laboratory Morphology, physiology, systematics and evolu

 tion of crustaceans.ZOO 5335 Systematic Zoology
A practical and theoretical approach to evolutionary zoology. Prerequisites: 8 semester hours of biology or zoology.

## Chemistry

Arthur W. Herriott, Professor
Howard Moore, Professor
John W. Sheldon, Professor
Leonard S. Keller, Associate Professor
John H. Parker, Associate Professor
John T. Landrum, Assistant Professor
Zaida C. Martinez, Instructor
The chemistry program is part of the Department of Physical Sciences. Additional information and counseling may be obtained from the Departmental Office. No D grades will be allowed in courses required for the major.

## Chemistry

## 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. Students interested in secondary teacher certification should contact the SchooI of Education at 552-2721.

## LOWER DIVISION PREPARATION:

Required Courses: one year of general chemistry with laboratory; algebra and trigonometry, (advanced high school courses in algebra and trigonometry are acceptable).

## LOWER OR UPPER DIVISION

## PREPARATION:

Differential and Integral Calculus I \& II (MAC 3411 \& 3412); Organic Chemistry I \& II (CHM 3210, 3210L \& 3211, 3211L); Physics with Calculus (PHY 3040, 3041).

## UPPER DIVISION PROGRAM:

A total of at least 41 units in chemistry to include the following:


At least six additional units in chemistry to include either:

CHM 4490 Molecular Spectroscopy
PHY 4604 Quantum Mechanics 3
One additional senior-level ( 4000 ) chemistry course

At least three additional units to be chosen from the following list:

| MAP 3302 | Differential Equations | 3 |
| :--- | :--- | :--- |
| COP 3112 | Introduction to |  |
|  | Computers I | 3 |
| MAC 3413 | Multivariable Calculus | 3 |

Electives:


## Bachelor of Arts

This program is designed for students preparing for careers in medicine, dentistry, environmental studies, veterinary medicine, patent law, secondary science education, or criminalistics chemistry. Students should complement the basic curriculum with suitable electives chosen in consultation with an advisor. Students interested in secondary teacher certification should contact the School of Education.

## LOWER DIVISION PREPARATION:

Required Courses: one year of general chemistry with laboratory; one year of general biology with laboratory; algebra with trigonometry (advanced high school courses in algebra and trigonometry are acceptable).

## LOWER OR UPPER DIVISION <br> PREPARATION:

Differential and Integral Calculus I \& 11 (MAC 3411 \& 3412); Organic Chemistry I \& II (CHM 3210, 3210L \& 3211, 3211L); Physics (either PHY $3040,3040 \mathrm{~L}$ and $3041,3041 \mathrm{~L}$ or PHY $3050,3050 \mathrm{~L}$ and 3051, 3051L).

## UPPER DIVISION PROGRAM:

A total of at least 16 units in chemistry to include the following:

## Semester Hours

| CHM 3120 | Quantitative Analysis | 3 |
| :---: | :---: | :---: |
| CHM 3120L | Quantitative Analysis Lab | 2 |
| CHM 3400 | Physical Chemistry for Life Sciences | 3 |
| CHM 3400L | Physical Chemistry for Life Sciences Lab | 1 |
| CHM 4200 | Advanced Organic Chemistry | 3 |
| CHM 4230 | Structure Determination Lab | 1 |
| And at least one additional course in chemistry |  | 3 |
|  |  | 16 |
| Electives: |  | 44 |
|  |  | 60 |

## Minor in Chemistry

Requires a total of at least 23 units in chemistry to include:

## Semester Hours

General Chemistry I \& II (CHM
$3045,3045 \mathrm{~L}$ and 3046 and 3046 L ) 9
Quantitative Analysis (CHM
3120, 3120L)
5


Organic Chemistry I \& II (CHM $3210,3210 \mathrm{~L}$ and $3211,3211 \mathrm{~L}$ )

Criminalistics-Chemistry Program Criminalistics-Chemistry Core Requirements: Same as requirements for the BA 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:

Semester Hours
CHM 4130, CHM 4130L
Modern Analytical Chemistry
CHM 4490, CHM 4490L
Spectroscopy and
Molecular Structure 5
Internship:
A 3-6 credit internship in the laboratory of a participating criminal justice agency.
Criminal Justice Coursework:
The student should elect 9 credits of criminal justice courses in consultation with an advisor in the Department of Criminal Justice, 940-5850.

## Electives:

Coursework in the behavioral and political sciences, as well as upper division coursework in the biological sciences, is recommended to total 60 semester hours.

## Chemistry

## 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 one or two semesters 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

Note: Laboratories may not be taken prior to the corresponding course. Laboratories must be taken concurrently where noted. Students must register for the laboratory separately.
Definition of Prefixes
CHM - Chemistry; CHS - Chemistry-Specialized; ISC - Interdisciplinary Natural
Sciences.
CHM 3030 Survey of General
Chemistry
CHM 3030L Survey of General Chemistry Lab
A basic one-semester survey course in chemistry for non-majors. Topics include atomic structure, stoichiometry, bonding, equilibrium, electrochemistry. Does not fulfill requirements for chemistry, biology or pre-med majors. Laboratory must be taken concurrently with the course. Prerequisite: One year of high school or college algebra.

## CHM 3045 General Chemistry I

CHM 3045L General Chémistry Lab I
Fundamental principles of general chemistry: States of matter, atomic structure, stoichiometry, chemical bonding, acid-base reactions, gas laws. Concurrent registration in both lecture and laboratory is required. Prerequisite: Second year high school algebra or college algebra.

CHM 3046 General Chemistry II (3)

CHM 3046L GeneraI Chemistry Lab II
Continuation of General Chemistry I (CHM 3045). Fundamental principles of chemistry: thermodynamics, solutions, kinetics, equilibrium and electrochemistry. Concurrent registration in both lecture and laboratory is required. Prerequisite: CHM 3045, 3045L.

CHM 3120 Quantitative Analysis
CHM 3120L Quantitative Analysis Laboratory
Fundamentals of classical quantitative analysis. Topics include theory of precipitation, acidbase, and oxidation-reduction reactions, as well as an introduction to spectrophotometric methods of analysis, ion-exchange techniques and complex formation titrations. Laboratory must be taken concurrently with the course. Prerequisites: CHM 3045, CHM 3046.

## CHM 3200 Survey of Organic Chemistry

CHM 3200L Survey of Organic Chemistry Laboratory
A basic one-semester survey course in organic chemistry for nonmajors presenting a broad background in the reactions and structures of organic molecules. Does not fulfill requirements for chemistry, biology, or pre-med major. Laboratory must be taken concurrently with the course. Prerequisite: CHM 3030.

## CHM 3210 Organic Chemistry I

## CHM 3210L Organic Chemistry Laboratory I

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. Concurrent registration in both lecture and laboratory is required. Prerequisite: CHM 3046.

## CHM 3211 Organic Chemistry II

CHM 3211L Organic Chemistry Laboratory II
Continuation of CHM $3210,3210 \mathrm{~L}$ - Concurrent registration in lecture and laboratory required. Prerequisite: CHM 3210, 3210L.

## CHM 3400 Physical Chemistry for the Life Sciences

CHM 3400L Physical Chemistry for the Life Sciences Laboratory
Principles of physical chemistry with particular application to the life sciences. Topics include thermodynamics, equilibria, electrochemistry,
and reaction kinetics. Laboratory must be taken concurrently with the course. Prerequisites: MAC 3411, 3412; PHY 3040, 3040L and 3041, 3041 L or PHY 3050 and 3051.
CHM 3410 Physical Chemistry I
CHM 3410L Physical Chemistry 1 Lab
Fundamental principles and applications of thermodynamics: enthalpy, entropy, free energy, as well as chemical potential, the phase rule, and the concepts of activation energy. Laboratory must be taken concurrently with the course. Prerequisites: MAC 3411, 3412; PHY 3040, 3041, and CHM 3120, 3210, 3211.
CHM 3411 Physical Chemistry 11
CHM 3411L. Physical Chemistry
Laboratory l]
Equilibrium, chemical potential, reaction kinetics, catalysis, coligative properties of solutions, osmotic pressure, dipole moments and conductivity. Prerequisite: CHM 3410.
CHM 3949-CHM 4949 Cooperative Education in Physical Sciences
One semester of full-time supervised work in an outside laboratory. Limited to students admitted to the University Co-op Program. A written report and supervisor evaluation will be required of each student.
CHM 4090L Introduction to Scientific Glassblowing
Basic glassblowing operations with glass tubing and rod are taught. Emphasis is on making and repair of scientific glassware. No prerequisites.
CHM 4130 Modern Analytical Chemistry
CHM 4130L Modern Analytical
Chemistry Laboratory
Instrumental methods of chemical analysis, including electroanalytical methods, gas and liquid chromatography, mass spectrometry, x -ray fluorescence, and spectrophotometric methods. Laboratory must be taken concurrently with the lecture. Prerequisites: CHM 3120; CHM 3210, CHM 3211, PHY 3050, and PHY 3051.
CHM 4180 Special Topics in Analytical Chemistry
(VAR)
An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4130 or permission of instructor.

## CHM 4220 Advanced Organic Chemistry

An intensive examination of the major areas of contemporary organic chemistry. Reactive intermediates, pericyclic reactions, molecular rearrangements, and modern synthetic methods are among the topics. Prerequisite: CHM 3210 , CHM 3211.

# Chemistry 

## CHM 4230L Structure Determination <br> Laboratory

The qualitative analysis of organic compounds using modern spectroscopic, chromatographic and chemical methods. (Restricted to B.A. Chemistry majors). Prerequisites: CHM 3210. CHM 3211.

## CHM 4300 Bio-organic Chemistry

Chemistry of naturally occurring organic compounds of biological importance. The relationship between organic chemistry and the chemical reactions which constitute the living organism. Prerequisite: CHM 3210, CHM 3211.

CHM 4310 Special Topics in Organic Chemistry
(VAR)
An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 3211 and permission of instructor.

## CHM 4320L Research Techniques in Chemistry

Practical instruction in the more advanced manipulations and procedures of the modern chemistry laboratory. This course is designed to prepare a student for research in chemistry and is a prerequisite for independent study (CHM 4910L, $4911 \mathrm{~L}, 4912$ L). Prerequisites: CHM $3120,3211,3410$. (CHM 3410, may be taken concurrently.)

CHM 4490 Spectroscopy and Molecular Structure
Energy states, symmetry properties, selection rules, and fundamental principles of spectroscopy. Introduction to the theory of UV/ visible, infrared, Raman microwave, nmr, photelectron, and mass spectroscopies and application of these methods to the determination of fundamental physical properties and the structure of organic and inorganic molecules. Prerequisites: CHM 3411 and PHY 3051.

## CHM 4490L Spectroscopy and Molecular

 Structure LabThe theory of spectroscopy and the use of modern instrumentation to investigate molecular structure. Prerequisites: CHM 3210, 3210L, 3211, 3211L. Co-requisite: PHY 4604 or CHM 4490.

CHM 4580 Special Topics in Physical Chemistry
(VAR)
An intensive examination of one or more areas selected by the instructor and students. Prerequisite: Permission of instructor.
CHM 4610 Advanced Inorganic Chemistry (3)
Atomic structure, periodicity, bonding and structure of inorganic compounds, solution chemistry, ligand field theory, organometallic chemistry, and specific chemistry of the elements. Prerequisites: CHM 3120, 3211. Corequisite: CHM 3400 or CHM 3410 .

## CHM 4680 Special Topics in Inorganic Chemistry

(VAR)
An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4610 or permission of instructor.

## CHM 4910 Research and Independent

 CHM 4911 Study in Chemistry CHM 4912(VAR)
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). Credit is assigned on the basis of 4 hr /wk or laboratory/library work per 1 hr of credit. It is recommended that the credits required of all BS chemistry majors be taken over 2 semesters. A written report is required.

CHM 4930 Senior Seminar
Each student will make an oral presentation to faculty and other students enrolled in the seminar course. The subject of the seminar 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. Prerequisite: CHM 4130 or permission of instructor.

CHM 5250 Organic Synthesis
Use of classical and modern reactions in the design and construction of complex organic molecules, including natural products. Some topics covered will be construction reactions, refunctionalization, stereochemistry and conformational analysis. Prerequisites: CHM 4220 or permission of instructor.

## CHM 5260 Physical Organic Chemistry

A series of topics will be discussed including molecular orbital theory as it pertains to organic molecules, kinetic and thermodynamic approaches to the study of reaction mechanisms, quantitative approaches to conformational analysis, etc. Prerequisites: CHM 4220 or permission of instructor.

## CHM 5280 Natural Products Chemistry and Biosynthesis

Studies of the chemical origins (biosynthesis), properties, and synthesis of the various classes of naturally occurring compounds: terpenes, steroids, alkaloids, acetogenins. Prerequisite: CHM 4220 or permission of instructor.

## CHM 5380 Special Topics in Organic Chemistry

(VAR)
An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4220 or permission of instructor.

## CHM 5440 Kinetics and Catalysis

Theory of elementary reactions, activated complex theory, mechanisms of complex reactions. Prerequisites: CHM 3411, MAP 3302.
CHM 5517 Solid State
Crystalline form of solids, lattice dynamics, metals, insulators, semi-conductors, and dielectric materials. Prerequisites: CHM 4490 or PHY 4604.

## CHM 5581 Special Topics in Physical

 Chemistry(VAR)
An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 3411 or permission of instructor.

CHM 5650 Physical Inorganic Chemistry (3) Introduction to use of physical methods to determine structure of inorganic compounds. Prerequisite: CHM 4610 or permission of instructor.
CHM 5681 Special Topics in Inorganic Chemistry
(VAR)
An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4610 or permission of instructor.
CHS 4100 Radiochemistry
CHS 4100L Radiochemical Techniques Laboratory
Production, isolation, methods of detection, counting statistics and estimation of radioisotopes. Applications to chemical, physi: cal and biological problems. Laboratory must be taken concurrently with the course. Prerequisites: CHM 3045, 3046, 3120, 3120L; MAC 3411, 3412.
ISC 4041 Scientific Literature
This course presents a perspective on the 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. Prerequisites: 16 semester hours of science.

## Earth Sciences

## Earth Sciences

Florentin J-M.R. Maurrasse, Associate<br>Professor<br>Grenville Draper, Assistant Professor

Earth Sciences is part of the Department of Physical Sciences. The program is designed to thoroughly prepare the student in the geological, marine and atomospheric sciences. Teaching and research is particularly concerned with earth science in the Caribbean. Student and faculty exchanges with counterparts in the Caribbean will be promoted. Additional information and counseling may be obtained from the $\mathrm{De}^{-}$ partmental Office. No D grades will be allowed in courses required for the major.

## Bachelor of Science

This program prepares the student for graduate study or a career in the earth, marine, atmospheric or environmental sciences.

## LOWER DIVISION PREPARATION:

Required Courses: 4 semester hours of general biology; 4 semester hours of physical geology or equivalent; 4 semester hours of historical geology; 6 semester hours of trigonometry and analytical geometry.

## LOWER OR UPPER DIVISION PREPARATION:

At least 6 semester hours of differential and integral calculus; at least 8 semester hours of general chemistry (including laboratory); at least 8 semester hours of general physics with calculus (including laboratory).

## UPPER DIVISION PROGRAM:

Required Courses: At least 39 semester hours of earth science are required including those marked with an asterisk:

Semester Hours
AST 3100
GEO 3200
GEO 3200L
GLY 3200
GLY 3200L
GLY 3220
GLY 3220L
GLY 3760
Modern Astronomy 3
Physical Geography* 3
Physical Geography Lab 1
Mineralogy* 3
Mineralogy Lab I
Optical Mineralogy* 3
Optical Mineralogy Lab 1
Geological Map Analysis*
OCE 3322
MET 4701 Physical Ocean ography*

GLY 4315
Meterology
Ingneous and Metamorphic Petrology*
GLY 43I5L

Ingneous and Metamorphic Petrology Lab
GLY 440I
GLY 440IL
GLY 4555
GLY 4555L
GLY 4650
GLY 4650L
GLY 4791

GLY 4910

| Semester |  |  |
| :--- | :---: | :---: |
|  | Hours |  |
| Structural Geology* | 3 |  |
| Structural Geology Lab | 1 |  |
| Sedimentology* | 3 |  |
| Sedimentology Lab | 1 |  |
| Paleobiology* | 3 |  |
| Paleobilogy Lab | 1 |  |
| Cartography and |  |  |
| Geologic Surveying* | 3 |  |
| Independent Study* | 3 |  |
|  | Electives: 21 |  |

60

## Course Requirements

## Bachelor of Arts

This program is for the student who requires a broad background in earth sciences for a career in science education or public or private administration dealing with earth and environmental sciences.

## LOWER DIVISION:

4 semester hours of general biology; 4 semester hours of physical geology or equivalent; at least 6 semester hours of trigonometry and analytical geometry at least 8 semester hours of general chemistry.

## UPPER DIVISION PROGRAM:

At least 24 semester hours selected from the following. In the event of some of these courses being unavailable students may substitute another earth or environmental course at their advisors discretion.

Semester hours

| AST 3100 | Modern Astronomy |
| :---: | :---: |
| MET 4701 | Meteorology |
| GEO 3200 | Physical Geography |
| GEO 3510 | Earth Resources |
| OCE 3014 | Physical Oceanography 3 |
| EVS 4164 | Applied Environmental Geology |
| EVR 42 II | Water Resources |
| OCB 3010 | Biological |
|  | Oceanography |
| GLY 4650 | Paleobiology |
| GLY 3200 | Mineralogy |
| GLY 3760 | Geological Map |
|  | Analysis 2 |
| GLY 4401 | Structural Geology 3 |
| GLY 4791 | Cartography and |
|  | Geological Surveying |

(Note: Where a laboratory course is offered with a course student must take that laboratory).
Electives:
36
60

## Cooperative Education

Students seeking the baccalaureate degree in Earth Sciences may also take part in the Cooperative Education Program conducted with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters 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

Note: Laboratories may not be taken prior to the corresponding lecture course. Laboratories must be taken concurrently where noted, but students must register for the laboratory separately.

## Definition of Prefixes

EAS - Earth Science, EVS - Environmental Science; GEO - Geography-Systematic; GLY - Geology; MET - Meteorology; OCE Oceanography; OCG-Oceanography-Geological; OCP - Oceanography-Physical.

## AST 3100 Modern Astronomy

The structure and evolution of our solar system is studied, with particular emphasis on physical concepts. Topics will include astronomical coordinate systems, celestial mechanics, the earth's motions, and a description of the solar system. Prerequisites: College algebra and geometry.

EVS 4164 Applied Environmental Geology (3)

## EVS 4164L Applied Environmental

Geology Lab
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 subtratum. Principles illustrated from South Florida and the Caribbean region in particular. Study of the geological 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 3200, and a sound background in mathematics, physics, and chemistry. Laboratory must be taken concurrently with course.

## Earth Sciences

## GEO 3200 Physical Geography

GEO 3200L Physical Geography Lab
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 3510 Earth Resources

Distribution of mineral resources, with special emphasis on metallic deposits. Problems of exploitation and depletion on a worldwide scale; environmental, social, economic, and political impacts; international control and trade. One or two field trips to a mining region expected. No prerequisites.

GLY 3106 Environmental Earth Sciences
A course for non-science majors and those desiring a cultural understanding of the earth sciences. Origin of the earth. Processes taking place in the earth's lithosphere, hydrosphere, and atmosphere which affect man in his environment. Earthquake prediction, pollution control, weather modification on global scales. No prerequisites.

GLY 3157 Elements of Caribbean Geology
A survey of the geology of the Caribbean and neighboring regions in view of current data and modern concepts of global tectonics. The course summarizes the important points of Caribbean and Central American geology in their relation to mineral and energy resources; natural environmental disasters, especially seismic zones; agriculture; and the geologic potentials for future development and industrialization.

## GLY 3215 Mineralogy

GLY 3215L Mineralogy Lab
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. Laboratory must be taken concurrently with course.

GLY 3322 Optical Mineralogy
GLY 3322L Optical Mineralogy Lab
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. Laboratory must be taken concurrently with course.

## GLY 3760 Geological Map Analysis

Laboratory course dealing with analysis of geological maps and sections; theory and method of interpretation of surface outcrops on maps. Properties of simple geological structures. Recommended to be taken prior to GLY 4401 and GLY 4791. Prerequisites: trigonometry, physical geology or equivalent (e.g. MAC 3132, GLY 3850 or equivalents).

GLY 3850 Environmental Geology
GLY 3850L Environmental Geology Lab (1)
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 3949/GLY 4949 Cooperative Education in Earth Science

One semester 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 for each student.

## GLY 4190 Caribbean Earth Sciences <br> Seminar

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

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, gydrosphere, 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

GLY 4315L Igneous and Metamorphic Petrology Lab
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. Laboratory must be taken concurrently with course.

## GLY 4401 Structural Geology

## GLY 4401L Structural Geology Lab

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. Laboratory must be taken concurrently with course.

## GLY 4450 Geophysics

A survey of the different principles and methods of measurements of the physical properties of the earth and the moon; seismic, magnetic, electrical, thermal and gravitational. The implications of the results in terms of the earth's structure, composition, evolution and present state. Case studies illustrated from recent geophysical data from the Caribbean area and Central America. Prerequisites: GLY 3106 and OCE 3014.

GLY 4555 Sedimentology
GLY 4555L Sedimentology Lab
Sedimentary processes in the geological cycles, as illustrated in recent environments. Different groups of sedimentary rocks. Primary and secondary sedimentary structures. Physicochemical properties and diagenetic processes. Analytical techniques applied to modern sedimentology of both loose and lithified sediments. Prerequisites: Physical Geology or equivalent; Minerology; Optical Mineralogy; Paleontology, and a sound background in mathematics and chemistry. Laboratory must be taken concurrently with course.

## GLY 4650 Paleobiology

GLY 4650L Paleobiology Lab
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 sonation, and as paleoecologic indicators. Prerequisites: physical and historical geology, general biology, or the instructor's permission. Laboratory must be taken concurrently with course.

## GLY 4730 Marine Geology

GLY 4730L Marine Geology Lab
Survey of the main physiographic provinces of the ocean floor. Modern theories conceming the evolution of the crust; continental drift, seafloor spreading. Distribution and thickness of deepsea sediments, and their relationship to the mor-

# Economics Major 

phology 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. Laboratory must be taken concurrently with course.

## GLY 4791 Cartography and Geological Surveying

A three-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. Prerequisite: GLY 4401 or equivalent. Open to majors only.

## GLY 4792 Caribbean Mineral Resources Field Trip

A three-week field course in at least two Caribbean islands. Cursory review of the geologic 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 exploitation. Prerequisite: GLY 3157 or instructor's permission.

## GLY 4816 Mineral Deposits

GLY 41816L Mineral Deposits Lab
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 is placed on known and potential mineral deposits of the Caribbean and neighboring areas. Prerequisites: Physical Geology or equivalent, GLY 3322, and chemistry. Laboratory must be taken concurrently with course.

GLY 4910, GLY 4911 Independent Study (VAR) 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. Permission of the student's advisor is required.

## GLY 5620 Caribbean Stratigraphic Micropaleontology

Survey of the stratigraphy of biostratigraphic type-sections described in the Caribbean area. Deep-sea stratigraphy from both piston-cores and deep-sea drilling samples. Emphasis is placed on planktonic foraminifera and radiolaria species used as index-species in the equatorialtropical 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

Four-week field study of multiple tropical environments as illustrated in the Caribbean. Physico-chemical processes in the nearshore arenaceous, argillaceous and calcareous environments. Coral reef morphology, ecology and distribution patterns. Dynamical processes acting on the nearshore environments, and their effects on reef growth and distribution. Reef beoerosions. Coastal evolution in response to natural processes. On-site study of some similar emerged environments in the Caribbean islands. Economic importance of tropical shallowmarine 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.

## MET 4701 Meteorology

The earth's atmosphere and its physical properties. General circulation and thermal structure of the atmosphere on a global and local scale. Physics and dynamics of clouds. Weather analysis and forecasting including temperate and tropical areas, with emphasis on the Caribbean and neighboring areas, birthplace of major Atlantic tropical storms. Reading of weather maps, introduction to meteorologic instruments, transmission and plotting of meteorological data. Recommended preparation: AST 3100, GEO 3200, and competence in physics and calculus.

OCE 3014 Physical Oceanography
A survey of the ocean as a physico-chemical environment. Properties of sea water, and the influence of sea-air interactions on the ocean structure. Water masses and oceanic circulation patterns. Diffusion and advection and their relation to oceanic properties. Heat budget and climatic control. Impact of oceanic properties on man's environment and economy. Case study of mediterranean sea illustrated by the Caribbean Sea. One field trip to be expected.

## OCG 6105 Advanced Marine Geology

OCG 6105L Advanced Marine Geology Lab (1) 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 6280 Marine Sedimentary Petrology
OCG 6280L Marine Sedimentary Petrology Lab 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 6453 Hydrochemical Reactions in Coastal Aquifers

OCG 6453L Hydrochemical Reactions in Coastal Aquifers Lab
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: General Chemistry \& GLY 3950 or equivalent.
OCP 5291 Coastal Processes
OCP 5291L Coastal Processes Lab
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.

## Economics Major

Jorge Salazar-Carrillo, Professor and Chairman
Mira Wilkins, Professor
Antonio Jorge, Professor
René Higonnet, Professor
Raul Moncarz, Associate Professor
D. Babatunde Thomas, Associate Professor

Panagis S. Liossatos, Associate Professor
Peter J. Montiel, Assistant Professor
Leonard P. Lardaro, Assistant Professor
Gordon V. Karels, Assistant Professor
Mostafa Hassan, Visiting Professor
Tetsuo Abo, Visiting Associate Professor
Irma G. Tirado de Alonso, Visiting Associate Professor
Kenneth J. Lipner, Visiting Associate Professor

## Economics

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, govemment, 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 <br> DEGREE: Bachelor of Arts <br> 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 English composition; six semester hours in college algebra and trigonometry; three semester hours in statistics.
Remarks: The entering student who has not taken principles of economics must enroll in ECO 3003 during his or her first semester at the University. Students who expect to go beyond the B.A. level in economics are advised to begin calculus at the lower division level.

## UPPER DIVISION PROGRAM

Major Required Courses:

| ECO 3101 | Theory of Price |
| :--- | :--- |
| ECO 3203 | Aggregate Economic <br>  <br> ECO 3nalysis |
| ECO 4417 | Topics in Theory <br>  <br>  <br>  <br> Measurement and <br> Analysis of Economic <br> Activity |
| Additional Escomics Courses |  |

Additional Economics Courses*
*ECO 3003, ECO 3043 and ECO 3432 cannot be included in this grouping Electives.

Remarks: A grade of $C$ or better in all courses required for the major is necessary for graduation. 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.
Minor in Economics
Minor Required Courses:
ECO 3101 Theory of Price
or
ECO 3203 Aggregate Economic Analysis
Additional Economics Courses*
*ECO 3003, ECO 3043, and ECO 3432 cannot be included in this grouping.
Remark: Introductory courses in calculus and statistics are strongly recommended for the student minoring in economics.

## Course Descriptions

## Definition of Prefixes

ECO - Economics; ECP - Economic Problems \& Policy; ECS - Economic Systems \& Development.

## ECO 3003 Economics, Man and Society

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 3040 Consumer Economics

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

Operation of individual markets; market structure; theory of the firm; theory of production; demand theory; general equilibrium and welfare economics. Recommended preparation: ECO 3003.
ECO 3203 Aggregate Economic Analysis 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 3003.

## ECO 3223 Money and Banking

Elements of monetary theory; relationships between money, prices, production and employment; factors determining money supply; history and principles of banking, with special references to the United States.

## ECO 3271 Topics in Theory

Welfare economics; analysis of factor markets and income distribution; growth theory. Prerequisites: ECO 3101 and ECO 3203.

ECO 3303 Development of Economic Thought 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

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 3949 Cooperative Education in Economics A student majoring in Economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major.
ECO 4224 Issues in Money and Banking
Formulation and execution of monetary policy. Analysis of monetary policy as it has been carried out in recent years, and as it should be conducted.
ECO 4307 Radical Political Economy (3)

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
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, and calculus.
ECO 4417 Measurement and Analysis of Economic Activity Statistics with special reference to economics, including the following topics: quantitative economics, descriptive statistics, probability and inference, and regression analysis applied to economics. Prerequisites: STA 3161.
ECO 4422 Introduction to Econometrics
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 Economics of Government Spending and Taxation
Describes the way resources are allocated in a market economy and cases where markets fail. Analyzes government expenditure policy, principles of taxation, and the various taxes in use today. Prerequisite: ECO 3003.

## Economics

ECO 4622 Economic Development of the United States
(3) The growth of the American economy from colonial times to the present. Special emphasis on market forces, institutional arrangements, and policies contributing to this process.

ECO 4623 American Business History
The growth of American business from 1880 to present; integration, diversification, and foreign expansion. Business strategies and managerial structures.

ECO 4632 European Economic History
The development of Mediterranean and Western European economies, from the earliest times to the 20th Century. Attention is centered on capital accumulation, technology, trade, industrialization, monetary factors, and the role of government in economic organization.
ECO 4701 World Economy
A broad overview of the international economy in historical perspective. Topics: economic demography, trade flows, capital movements, diffusion of technology, the emergence of transnational institutions. The student obtains a conception of how economic interdependence has developed.
ECO 4703 International Economics
Principles of international trade and balance of payments; significance of geographic, economic, social, and political influences; current problems in international trade and payments; tariffs and commercial policy; role of international organizations. Recommended preparation: ECO 3101.

ECO 4713 International Monetary Relation (3) 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 3203.

## ECO 4733 Multinational Corporation

Growth and development of multinational enterprise. Theories of direct foreign investment. Impact on the United States and other developed and less developed nations. Policy implications relating to employment, economic growth, balance of payments, taxation, and national defense. National sovereignty and the multinational corporation.
ECO 4902 Undergraduate Tutorial
Supervised readings, individual tutorial, and preparation of reports. Requires consent of faculty supervisor and Department Chairperson.
ECO 4949 Cooperative Education in Economics
A student majoring in Economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major.

ECO 5116 Advanced Microeconomic Theory (3) Competitive and monopolistic markets as they pertain to the theory of price, allocation of resources and comparative advantage. Development of consumer demand theory from neoclassical and modern viewpoints. Prerequisites: Intermediate Microeconomics and Calculus 1; Calculus II recommended.

## ECO 5206 Advanced Macroeconomic Theory

State-of-the-art theories of sectoral expenditure and financial market equilibrium. Inflation, unemployment, macroeconomic dynamics. Prerequisites: Intermediate Macroeconomic Theory; Calculus I; Statistics. Calculus II recommended.
ECO 5216 Monetary Theory and Policy (3) 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 5405 Mathematical Economics
Application of mathematical methods to economics. The topics and tools of mathematical economics are presented in a rigorous fashion within an economic context. Prerequisites: Advanced Microeconomics and MAS 3412 or equivalent.

## ECO 5423 Econometric Methods I

Practical and theoretical foundations of empirical economics. Knowledge in formulation, estimation, and evaluation of econometric models. Prerequisites: ECO 4417 or equivalent; Calculus I; Calculus II recommended.

ECO 5617 Seminar in Economic History
Topics in economic history, exploration of the economic history literature on a selected theme, student presentations. Prerequisites: Permission of instructor for undergraduates.

## ECO 5701 The World Economy

Designed to give an overview of the crucial issues in the world economy, the course covers trade, capital, labor, and technology flows; transnational economic organizations; current economic crisis; global economic interdependence; and the nature and characteristics of international economic order. Required for M1B Program.

ECO 5706 International Trade
Positive and normative aspects of international trade. Theories of comparative advantage, commercial policy, trade and income distribution. Prerequisites: Advanced Microeconomic Theory; Calculus.

ECO 5715 International Money
Theory of international monetary equilibrium. Problems of international payments and ex-
change rate control; their effect on international monetary problems. Analysis of short and long term monetary flows and macroeconomic adjustment. Prerequisites: Advanced Macroeconomics and Calculus.

ECO 5734 Multinational Corporations
Economic theory and multinational corporations. Economic effects. Consequences of nationalization. Spread of the multinational form. State-owned multinational corporations. Prerequisites: Permission of instructor for undergraduates.

ECO 5906 Advanced Individual Study
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
Variable-topic study group in application of economic analysis to specific problems. Open to seniors and graduate students.
ECO 5945 Intemship
Directed individual study which assists the student in using economic analysis in his employment. Prerequisite: Permission of the instructor.
ECO 6115 Graduate Seminar in Economic Theory
Variable-topic graduate study group in theoretical problems. Open only to students with graduate standing.
ECO 6236 Money, Banking and Monetary
Policy
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 6425 Econometric Methods II
A continuation of ECO 5424. Advanced single equation estimation, estimation of distributed lags, simultaneous equations, time series and models of qualitative choice. Prerequisites: ECO 5424 and MAS 3103 or equivalent.
ECO 6506 Public Finance
Partial and general equilibrium analysis of tax incidence efficiency, public goods, public pricing problems, the social rate of discount, and non-market decision making. Prerequisite: Calculus.
ECO 6938 Individual Graduate Study
Supervised readings, tutorial and preparation of report. Open only to graduate students. Requires consent of supervisor and approval of Department Chairperson.

## Economics

## ECO 6971 Thesis

Writing and completion of thesis by candidate for a Master of Arts. Prerequisite: Student must be a Master's degree candidate, have had at least 35 hours of graduate work in economics; have a thesis topic approved by the Department's Graduate Committee and permission from the instructor.

ECP 3123 Economics of Poverty
Poverty in the United States: its measurement and history. Theory of personal income distribution. Present and proposed policies to alleviate poverty.

ECP 3303 Introduction to Environmental Economics
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 (3) Study of the urban environment, its characteristics and trends. Location behavior of firms and households. Urban financial problems, transportation, and housing.
ECP 4004 Seminar on Current Economic Topics
Faculty and student discussion of contemporary economic and social issues.
ECP 4203 Introduction to Labor Economics (3) Basic introduction to supply and demand for labor. Discusses labor markets in both historical and institutional context emphasizing why certain patterns have occurred and contemporary institutions developed. Prerequisite: ECO 3003.

## ECP 4222 Theory of Labor Economics

Neoclassical theory of labor demand and labor supply, human capital theory and critiques. Current programs of human resource development and income maintenance are discussed. Prerequisite: ECO 3101.

ECP 4314 Land and Resource Economics Availability, use, and control of land and other natural resources. Resource conservation, investment, and taxation. Environmental implications. Resource markets and pricing.

ECP 4403 Economic Policy for Industry
Governmental activities affecting business. Government regulation of business-its historical, legal, and economic perspectives, including recent developments in the United States and abroad. Government assistance to business; proposed policies. Recommended preparation: ECO 3101.
ECP 5205 Labor and Human Resources (3) Empirical and theoretical analysis of the factors determining employment and earnings, recent developments in the theory of labor supply, critiques of neoclassical theory, and current issues in public policy. Prerequisite: Calculus.

## ECP 5605 Urban and Regional Economics

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

## ECP 6405 Industrial Organization

The organization of the industrial economy with particular emphasis as to the type of competition, the bases of monopoly power and the extent of monopoly power. Prerequisites: Advanced Micro and Calculus.

ECP 6704 Managerial Economics I
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

(3)

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 (3) 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
An introduction to the political economy of the Latin American nations. Designed as a basis course to give the student an overview of the political economy of the nations with which we share this hemisphere.
ECS 3440 Economics of Central America
Survey of recent economic history of Central American countries, dealing with the institutional background and the structure of current economic activities. Special attention devoted to current problems of economic growth and social transformation.

ECS 4013 Introduction to Economic Development
Analysis of institutional and structural factors which determine the course of economic progress in developing countries. Characteristics of less developed areas: agriculture, investment, technology, population, international trade, economic integration.
ECS 4024 Economic Planning
(3)

Analysis of planning methods in capitalist and socialist economies. Evaluation of macro and micro economic planning tools (input-output and programming techniques). Theory and prac-
tice of economic development planning of agriculture, industrialization, foreign trade, and manpower.
ECS 4403 The Latin American Economies (3) Survey of economic status and problems of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of foreign intervention and dependence, and to different attempts at economic integration.

ECS 4403 Las Economias LatinoAmericanas
Estudio de los problemas economicos de Ibero-America, con enfasis en los paises mas grandes. Estudio detallado de problemas de intervencion, dependenia, $y$ integracion economica.

ECS 4404 Economic Integration-Latin America
Analysis of the methods, meaning and implications of economics in Latin America. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation. Prerequisite: ECO 3003, or equivalent.

ECS 4430 The Economic Development of
Cuba - Past and Present
Survey of the Cuban economy under capitalist and Marxist ideologies. Emphasis on the transition stage and on current policies of economic and social change.
ECS 4432 Economic Integration Caribbean
Analysis of the methods, meaning and implications of economic integration in the Caribbean. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation.

## ECS 4433 Economics of the Caribbean

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 5005 Comparative Economic Systems (3) A critical evaluation of the design, goals and achievements of economic policies in capitalist and socialist economies. Prerequisites: Permission of instructor for undergraduates.

## ECS 5025 Economic Problems of Emerging

## Nations

Specific economic problems of emerging nations and national groupings. Basic approaches to economic development; major proposals for accelerating development. Role of planning. Trade, aid and economic integration. Recommended preparation: ECO 3101 or ECO 3203.

## English

ECS 5405 Economics of Latin America
Dependence, population explosion, urban migration, agricultural reform, industrialization and import substitution, common markets. Prerequisite: Permission of instructor for undergraduates.

## English Major

Donald Watson, Associate Professor and Chairperson<br>Harry T. Antrim, Professor<br>Richard A. Dwyer, Professor<br>Butler H. Waugh, Professor<br>St. George Tucker Arnold, Associate Professor<br>Lynn M. Berk, Associate Professor<br>Charles Elkins, Associate Professor<br>James Hall, Associate Professor<br>Richard Sugg, Associate Professor<br>Mary Jane Elkins, Assistant Professor<br>Virginia Gathercole, Assistant Professor<br>Richard Schwartz, Assistont Professor<br>Carmela Pinto, Assistant Professor

LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Arts
LOWER DIVISION REQUIREMENTS:
Required Courses: A two-semester survey of British or American Literature. This requirement can be fulfilled at FIU.
Remark: The prospective secondary school teacher should take the Foundations of Education courses in the lower division. (Students interested in teacher certification refer to the School of Education).

## UPPER DIVISION PROGRAM:

Semester Hours
Required Courses: 30
English
Etectives:
The English Department recognizes a continuing obligation to insure that its majors write well. The Chairman may require any English major to take the appropriate composition course. (Hours earned in ENC 3034 - Problems in Composition - will not count toward the English major.)

An English major may choose to take a general program of English studies or may select one of the Department's three areas of emphasis: literature, language and linguistics, or creative writing. Majors should choose their English courses and electives in consultation with their advisors, especially upon entering the program.

A student in any of the emphases may apply for admission to the Honors Program. Application should be made with the Department Chairperson who will consult with the Honors Committee.

Students in the Teacher Preparation Program carry two majors - English and English Education. They must request admission to both pro-
grams. (Students interested in teacher certification, refer to the School of Education).

A grade of C or better in all courses required for the major is necessary for graduation.

## 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 3104 Survey of American Literature I (3) Students will read and discuss major American works written between 1620 and 1865 . Works will be considered in an historical context.

AML 3109 Survey of American Literature II (3) Students will read and discuss major American works written between 1865 and the present. Works will be examined in an historical context.
AML 4144 Periods in Americ an Literature (3) Individual sections will read and discuss works in the context of such historical settings as the colonial, federal, antebellum, reconstruction, or modern periods of the American past. May be repeated.

## AML 4210 Major American Writers

Each section of this course will consider the works of one, two, or three major American writers. The writers studied in this course will change from semester to semester. The course may be repeated for credit.
AML 5212 Major American Literary Figures (3) 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

An intermediate course in writing fiction.
CRW 4340 Writing Poetry
An intermediate course in writing poetry.
ENC 1101 Elements of Writing
The first course in composition. Students will study the basic principles of expository, persuasive, and reflective writing. They will write essays every week.
ENC 1102 Techniques of Interpretation
A continuation of ENC 1101, this course approaches the development of sensitivity to the writings of others and further explores the techniques of composition and library research.

ENC 3034 Problems in English Composition (3) A composition course designed to improve basic writing skills. Special attention will be paid to
grammar, sentence construction, paragraph development, and overall organization.
ENC 3063 Modes of tnquiry
A research and report writing course. A final research project is required. Basic bibliographical tools, library use, and technical and scientific reporting will be the main subject matter. There will also be an emphasis on style, structure, and tone in a variety of research modes.

ENC 3343 Basic Technical Writing
Effective presentation of technical and semitechnical information: technical description, information gathering, general technical reports, organization and development of information, process communication.
ENC 3351 Business Letters and Reports Intensive instruction and practice in the organization, content, and style of business letters of all kinds: special correspondence formats (bid proposals, customer relations), memoranda, feasibility reports, speeches, and group conference reports.
ENC 3353 Report and Technical Writing
For business, professional, and scientific students needing practice in collecting, organizing, interpreting, and presenting factual material.

ENC 3453 Expository Writing
An advanced composition course in the techniques of exposition, argumentation, and persuasion.

ENC 4354 Scientific Writing
Develops skills necessary to write laboratory reports, scientific proposals, articles, research reports, progress reports, and seminar presentations.

## ENC 4356 Report Writing

Instruction and practice in writing reports for practical purposes. Collecting, organizing, and interpreting facts, then writing up findings in report form and style. Includes recommendation reports, use of graphical elements, writing manuals and instructions, physical research reports, feasibility reports, progress reports, other specialized report formats.

ENC 4522 Rhetoric and Poetics
Ancient and modern theory and practice in discussing the formal properties of elevated language.
ENG 3101 Major Literary Modes
Individual sections will read and discuss the literary expression of heroic, tragic, comic, satire, mythic, realistic or other formalized views of human existence. May be repeated.
ENG 3137 The Movies
Viewing and discussion of films, with attention to cinematic ways of story-telling and to the popular film as an expression of cultural values. May be retaken for credit with change of content.

## English

## ENG 3500 English Linguistics

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 3949 Cooperative Education in English (3) A student majoring in English 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.
ENG 4949 Cooperative Education in English (3) A student majoring in English may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.
ENG 4103 Major Literary Genres
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 genres. May be repeated.

## ENG 4134 History of the Film

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

Intensive examination of the work of a particular nation, group, or director. May also explore various film genres, e.g., documentary, horror, the Western. With change of content, may be retaken for credit.

ENG 4555 Modern English Grammar
Practical study of syntax. Prerequisite: ENG 3500 , or consent of the instructor.
ENG 4574 Black English
This course is a linguistic approach to the characteristics and functions of Black English and the current social controversies surrounding it.

ENG 4906 Independent Study
(VAR)
Individual conferences, assigned readings, and reports on independent investigations, with the consent of the instructor.

ENG 4936 Honors Seminar
Designed specifically for honors students and other superior, highly motivated students. Seminar topics will vary from semester to semester.

ENG 5517 History of the English Language
Study of the development of the grammar and vocabulary represented in samples of the English language from the 8 th century to modern times. Prerequisite: ENG 3500, or consent of the instructor.

ENG 5536 Advanced Syntax
This course will expose students to the theoretical models on which much contemporary work in

English grammar is based. Students will read works on selected topics such as structural linguistics, transformational grammar, and case grammar. Specific content may change from semester to semester. May be retaken for credit when content changes. Prerequisites: ENG 4555, Modern English Grammar.
ENG 5816 Literary Criticism and Scholarship (3) Techniques and goals of humanistic research, bibliography, and critical commentary.
ENG 5836 Practical Criticism
Applies various critical theories - e.g. the formalistic, historical, structural, archetypal, sociological, etc. - to specific literary productions.
ENG 5907 Independent Study
(VAR)
Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chairperson.

ENG 6909 Independent Study
(VAR)
Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chaiperson.
ENL 3016 Survey of British Literature I
Students will read and discuss major British works written from the Old English period through 1750 . Works will be examined within an historical context.
ENL 3024 Survey of British Literature II
Students will read and discuss major British works written between 1750 and the present. The works will be examined in an historical context.

ENL 4137 Shakespeare: Histories
Reading and informal dramatic interpretation of representative plays.

## ENL 4138 Shakespeare: Comedies

Reading and informal dramatic interpretation of representative plays.
ENL 4139 Shakespeare: Tragedies (3)

Reading and informal dramatic interpretation of representative plays.
ENL 4540 Periods in English Literature (3) 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.

ENG 5220 Major British Literary Figures
Each section will consider the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated.

## LIN 4400 Applied Linguistics

Linguistics in the classroom. English as a second language. Stylistics. Dialects. Prerequisite: ENG 3500.


LIT 2022 Approaches to Literature
(3)

In this course, students will study the process of analyzing the meaning and artistry of literary texts. They will read and interpret representative poems, short stories, and plays.
LIT 3333 Survey of Afro-American Literature (3) 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 1946 to present.

## LIT 3411 Women in Literature

(3)

Students will examine the images of women created by European and American writers. The course will also explore the roles, historical and contemporary, of women writers.

## LIT 3510 Themes in Literature

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

A course designed to give students an opportunity to-pursue special studies not otherwise offered.
LIT 4290 Regional Literature in English
Individual sections will discuss English writing in Ireland, Scotland, Wales, Canada, the Caribbean, India, sub-Saharan Africa, and Oceania, as well as distinctive regions in England and America. May be repeated.
LIT 4349 Rhetoric and Communication: Black Rhetoric
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

(3) Individual sections will relate the study of literature to other disciplines in the humanities, fine

## Environmental Studies

arts, the social and natural sciences. May be repeated.
LIT 4930 Special Topics
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.
LIT 5542 Literary Movements
Individual sections will study the authors, works, and audiences involved in such phenomena as Humanisms, Mannerism, Romanticism, Symbolism, the Harlem Renaissance, and others. May be repeated.
LIT 5934 Special Topics
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

LIT 6934 Special Topics
(VAR)
A course designed to give groups of students an opportınity to pursue special studies not otherwise offered.
MMC 4607 Structure and Function of Mass Media
Will include the study of such topics as: mass communication and society, popular culture, communication and social order, classic studies in mass communication, propaganda.

## Environmental Studies

Dr. G. Dalrymple, Director, Biological Sciences
Dr. K. Boodhoo, International Relations
Dr. J. Brown, Anthropology/Sociology
Dr. R. Clem, International Relations
Dr. G. Draper, Physical Sciences
Dr. W. Goldberg, Biological Sciences
Dr. J. Gottlieb, Policital Science
Dr. A. Herriot, Physical Sciences
Dr. J. Huchingson, Philosophy/Religion
Dr. F. Jhabvala, Intemational Relations
Dr. D. Lee, Biological Sciences
Dr. J. Makemson, Biological Sciences
Dr. F. Maurrasse, Physical Sciences
Dr. H. Moore, Physical Sciences
Dr. J. Parker, Physical Sciences
Dr. J. Rotton, Psychology
Dr. W. Vickers, Anthropology/Socioloy
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.
LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Arts

## LOWER DIVISION REQUIREMENTS:

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.
UPPER DIVISION PROGRAM:
Required Courses:

| ANT 3403 | Cultural Ecology |
| :---: | :--- |
| ECP 3303 | lntroduction to |
|  | Environmental <br> Economics |
| EVR 3010- | Environmental Science |
| 3011- |  |
| EVR 4920 | Environmental |
|  | Colloquium |
| EVR 4905 | Independent Study or |
|  | Community Project |
| REL 4440 | Man and Nature |
| PUP 4203 | Environmental Politics <br> and Policies |

Area of Specializalion Courses:
The student must take three courses from one of the areas below.
Energy and Resource Managemenl
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
ANT $4031 \quad \begin{aligned} & \text { Environmental } \\ & \text { Revitalization }\end{aligned}$
DHE 3300 Human Ecology
REL 4173 Technology and Human Values
URP 4146 Planning and Human Ecology
SOP 4712 Environmental Psychology
International/Political Issues
INR 3043 Population and Society
INR 4044 World Population Problems
INR 4054 World Resources and World Order
PUP 3206 International Law and the Environment

Environmental and Urban Planning
URP 4146 Planning and Human Ecology
URP 3000 Urban Planning Concepts

## POS 4933

URP 4201 Urban Land Use Planning
In exceptional circumstances, the student, in consultation with an environmental advisor, may substitute approved courses for Area of Specialization requirements.
Electives Courses to make up the prescribed total number of credit hours required for graduation.
A grade of C or better in all courses required for the major is necessary for graduation.
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 - Economics, Man and Society; COP 3110 Introduction to Computers; STA 3122 - Introduction to Statistics.
UPPER DIVISION PROGRAM:
Recommended Courses:

| ENC 3353 | Technical Writing <br> POS 3044 |
| :--- | :--- |
| U.S. Government and <br> CHM 3200 | Politics <br> Survey of Organic <br> Chemistry |

Required Courses:
CHM $3120 \quad$ Quantitative Analysis
CHM 3120L Quantitative Analysis Lab
ECP 3303 Introduction to Environmental Economics
EVR 4211 Water Resources
EVR 4231 Air Resources
EVR 4311 Energy Resources
EVR 4920 Environmental Colloquium or
EVR 4905 Independent Study
GLY 3850 Environmental Geology
GLY 3850L Environmental Geology Lab
PCB 3043 Fundamentals of Ecology
PCB 3043L Fundamentals of Ecology Lab
PUP 4203 Environmental Politics and Policy

## Etectives:

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
5. Aquatic Technology

# Environmental Studies 

| Energy and Resources Courses |  |
| :---: | :--- |
| GEO 3510 | Earth Resources |
| GLY 3215 | Mineralogy |
| GLY 3215L | Mineralogy Lab |
| EVS 4164 | Applied Environmental <br> Geology |
| EVS 4164L | Applied Environmental <br> Geology Lab |
| CHM 3400 | Physical Chemistry for <br>  <br> Life Sciences |
| ETM 4205 | Applied Thermodynamics |
| ETM 4205L | Applied Thermodynamics |
|  | Lab |
| ETM 5260 | Solar Energy Technology <br> and Applications |
| EVR 5311 | Energy Resources and <br>  <br> Systems Analysis |
| Aquatic Ecology | Courses |
| EVS 3219C | Aquatic Systems |
| MCB 3023 | General Microbiology |
| MCB 3023L | General Microbiology Lab |
| OCB 3010 | Biological Oceanography |
| OCB 5635 | Marine Ecology |
| OCE 3014 | Physical Oceanography |
| PCB 4044 | Limnology |
| ZOO 3253 | Marine lnvertebrate |
|  | Zoology |

Terrestrial Ecology Courses
BOT 3503 Introduction to Plant Physiology
BOT 3663 Topics in Tropical Botany
ENY 3004 Entomology
MCB 3023 General Microbiology
MCB 3023L General Microbiology Lab
MET 4701 Meteorology
PCB 4324 Terrestrial Ecology
PCB 4324L Terrestrial Ecology Lab
Air Resources Courses
CHM 3200 Survey of Organic
CHM 3400 Physical Chemistry for the
EVR 5236 Air Pollution Dynamics
MET 4701 Meteorology
Aquatic Technology Courses
EVS 3215 Applied Hydraulics
EVS 4233 Unit Operations I
EVS 4234 Unit Operations 11
EVS 4463 Water Supply Systems
A grade of C or better in all courses required for the major is necessary for graduation.

## Master's Program in <br> 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 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 one or two semesters 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; 1NR - International Relations; ISC - Interdisciplinary Natural Science; MCB - Microbiology; MET - Meteorology; OCB Oceanography; Biology; OCE - Oceanography; PCB - Process in Cell Biology; PHR - Interdisciplinary Philosophy/Religion; POS Political Science; PUP - Public Policy; REL Religion; SOP - Social Psychology; ZOO Zoology.
EVR 3010 Introduction to Environmental Science: Energy Flow in Natural and Man-Made Systems
A course for non-science majors, emphasizing the study of energy flow and energy resources in natural ecosystems, agriculture and the global food and population crises, and land use.

EVR 3011 Introduction to Environmental Science: Environmental Resources and Pollution
A course for non-science majors, emphasizing air and water pollution, water resources, earth resources, solid waste disposal, noise pollution and weather patterns.
EVR 3013 Ecology of South Florida
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, endangered species and wildemess issues.
EVR 3931 Topics in Environmental Studies (3) An intensive analysis of several current environmental topics. Recommended for primary and secondary school teachers.
EVR 4021 Survey of Environmental Problems I
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: bioiogy, chemistry, geology, physics.

EVR 4022 Survey of Environmental Problems II
A continuation of EVR 4021.
EVR 4211 Water Resources
A seminar dealing with various aspects of water use, water pollution problems, chemistry and ecology of South Florida's waters. General biology is a prerequisite. General chemistry and general ecology are recommended.
EVR 4231 Air Resources
Common air pollutants - their sources and methods of control. Different legislative and administrative approaches will be studied. Prerequisite: General Chemistry.
EVR 4311 Energy Resources
Seminar dealing with power and energy production in modern society, fundamental energy relationships of industrial and domestic processes.

EVR 4905 Research and Independent Study (3) The student works with a professor on a research project.

EVR 4920 Environmental Colloquium
(3)

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

## History

through a series of field trips into several unqiue ecosystems, such as the everglades, hardwood hammocks, and coastal regions. No science background required.

EVR 5141 Environmental Nuclear Chemistry (3) Nuclear reactions and the nature of radioactivity. Properties and uses of radioactive isotopes, fission, and fusion. Introduction to reactor technology. Consent of instructor required.
EVR 5236 Air Pollution Dynamics
A course designed to give an understanding of the fates of atmospheric pollutants. Scavenging processes in the atmosphere; radiation, residence times, chemical reactions, global transport process, point source dispersion and modeling calculations. Prerequisite: EVS 3360 or EVR 4231.
EVR 5311 Energy Resources and Systems Analysis
Detailed analysis of energy flows in natural and man-made systems. Energy systems analysis. Energy use patterns. Conventional and alternate sources of energy.
EVR 5935 Special Topics
(VAR)
A graduate-level course dealing with selected environmental topics. The content will not necessarily be the same each time the course is offered.
EVR 5936 Topics in Environmental Studies (3) An analysis of several current environmental topics. Recommended for primary and secondary school teachers.

EVR 5907 Research and Independent Study
(VAR)
The student works with a professor on a research project. Variable credit.
EVR 3949/EVR 4949 Cooperative Education in Physical Sciences
One quarter of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required of each student.

## ANTHROPOLOGY

ANT 3403 Cultural Ecology
ANT 3263 World Food Supply
ANT 4031 Environmental Revitalization
BIOLOGICAL SCIENCES
BOT 3503 Introduction to Plant Physiology
BOT 3663 Topics in Tropical Botany
BOT 5665 Topics in Tropical Plant Science
BOT 5665L Topics in Tropical Plant Science Laboratory
ENY 3004 General Entomology
ENY 3004L General Entomology Laboratory

## MCB 3000 Introductory Microbiology <br> MCB 3000L Introductory Microbiology Laboratory

MCB 3023 General Microbiology
MCB 3023L General Microbiology Laboratory
OCB 3010 Biological Oceanography
OCB 5635 Marine Ecology
PCB 3043 Fundamental of Ecology
PCB 3043L Fundamental of Ecology Laboratory
PCB 4044 Limnology
PCB 4324 Terrestrial Ecology
PCB 4324L Terrestrial Ecology Laboratory
OCB 5635 Marine Ecology
OCB 5635L Marine Ecology Laboratory
ZOO 3253 Marine Invertebrate Zoology
ZOO 3253L Invertebrates Laboratory
ZOO 4424 Herpetology
ZOO 3433 Birds and Mammals
ZOO 3513 Ethology
ECONOMICS
ECP 3303 Introduction to Environmental Economics

ECP 4314 Land and Resource Economics
INTERNATIONAL RELATIONS
INR 3043 Population and Society
INR 4044 World Population Problems
INR 4054 World Resources and World Order
PUP 3206 International Law and the Environment

PHILOSOPHY AND RELIGIOUS STUDIES
REL 4440 Man and Nature
REL 4173 Technology and Human Values
PHYSICAL SCIENCES
CHM 3120 Quantitative Analysis
CHM 3120L Quantitative Analysis Laboratory
CHM 3200 Survey of Organic Chemistry
CHM 3200L Survey of Organic Chemistry Laboratory
CHM 3400 Physical Chemistry for the Life Sciences
CHM 3400L Physical Chemistry for the Life Sciences Laboratory
EVS 4164 Applied Environmental Geology

## EVS 4164L Applied Environmental Geology Laboratory <br> GEO 3510 Earth Resources <br> GLY 3106 Environmental Earth Sciences <br> GLY 3215 Mineralogy <br> GLY 3215L Mineralogy Laboratory <br> GLY 3850 Environmental Geology <br> GLY 3850L Environmental Geology Laboratory <br> MET 4701 Meteorology <br> OCE 3014 Physical Oceanography <br> POLITICAL SCIENCE <br> POS 4933 Environmental Planning and Law <br> PUP 4203 Environmental Politics and Policy <br> URP 4146 Planning and Human Ecology <br> PSYCHOLOGY <br> SOP 4712 Environmental Psychology <br> Environmental Internships

Students interested in job-related academic interships should contact their advisor. Two internships are regularly available at the Big Cypress Nature Center as Naturalist Assistants (Naples, Fla.). Details on compensation, benefits and academic credit can be obtained from Dr. J. Gottlieb (Political Science).

## History Major

Howard Kaminsky, Professor and Chairperson Eric Leed, Associate Professor
Brian Peterson, Associate Professor
Howard Rock, Assaciate Professor
Joyce Peterson, Assistant Professor
Darden Asbury Pyron, Assistant Professor
Mark D. Szuchman, Assistant Professor
LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Arts (*Students interested in teacher certification refer to the School of Education).
LOWER DIVISION PREPARATION:
Required Courses: None
Remark: Two advanced history courses may be counted toward the upper division major.
UPPER DIVISION PROGRAN:
The History Major
Semester Hours
A. HIS 3001 Introduction to History, or H1S 3104

Ideas and Methods of History
3
B. One course in each of the following areas: *
$\begin{array}{ll}\text { 1. Medieval Europe } & 3 \\ \text { 2. Modern Europe } & 3\end{array}$3

## History

3. The United States
4. Latin America, the Caribbean, Asia,
or Africa
5. Latin America, the Caribbean, Asia, or Africa
${ }^{*}$ The area-numbers are indicated in brackets at the end of each course-description
C. Any four additional History courses 12
D. Electives in History and other departments to make up the prescribed total number of credit-hours required for graduation. 27

A grade of C or better in all courses required for the major is necessary for graduation.
A Minor in History
A. HIS 3001 Introduction to History 3
B. Any four other History courses.

## Course Descriptions

## Definition of Prefixes

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

AMH 3130 The American Revolution
An exploration of the nature of the Revolution from the beginning of the conflict in 1763 through the ratification of the Constitution in 1789. Discussion of the political and economic differences between the colonists and England, along with the meaning that the war had to the different classes of Americans. [3]

AMH 3170 Civil War and Reconstruction
The rise and sources of militant sectionalism in the United States, the war itself, and the restoration of the nation. [3]
AMH 3251 The Great Depression
This course deals with the experience of the American people in the Great Depression of the 1930 s. It examines causes of the depression, government response, and effectiveness of response, as well as looking at the actual daily experience of people during the depression and the changes the depression made in U.S. society. [3]
AMH 3270 Contemporary U.S. History
An examination of major trends, forces and personalities that have shaped the recent American past. [3]
AMH 3275 The Kennedy Era
The Kennedy image and the reality of the Kennedy family's impact within the context of recent American political and social history. [3]

AMH 3317 America and the Movies
An examination of the social and cultural history of 20th century America through its movies. [3]
AMH 3331 American Intellectual History I
This course will trace the origins and develop-
ment of the main ideas and infellectual 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 (3) 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
The personalities, policies and politics of American presidents in the 18th and 19th centuries. [3]

## AMH 3355 Twentieth Century American Presidents

The personalities, policies and politics of American presidents from Theodore Roosevelt to the present. [3]

## AMH 3420 Florida History

A history of Florida from the time of the Indian until today. The course covers political, economic, social and cultural developments; it devotes special attention to the dependent position of Florida in the national economy, and the impact of this dependence on resources and people. [3]
AMH 3428 Miami Social History
An examination of the history of South Florida and the ethnic groups which make up the Miami population, particularly Blacks, Jews, Cubans and White southemers. [3]

AMH 3440 The Great American West
The course will explore the meaning of the West for both the settlers and modern Americans. Using song, film, novels, art, etc., the course will examine the lives and values of the Indians, mountain men, farmers, ranchers, and cowboys. [3]
AMH 3500 United States Labor History
A history of the experience of working class people in the United States and of the trade union movement from colonial times to the present. [3]
AMH 3560 History of Women in the United States
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
Black society in the United States and its relation to the political, economic, social and cultural history of America. [3]


AMH 3012 American History, 1600-1763
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 3013 American History,

$$
\begin{equation*}
1763-1877 \tag{3}
\end{equation*}
$$

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 3020 American History, 1877-Present (3) The history of the U.S. from the election of McKinley in 1896 to the Watergate crisis of the 1970s. [3]
AMH 4150 The U.S. in the National Period, 1750-1830
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 4400 Southern History
An examination of the main themes and social forces that have shaped the southern experience and the southern intellectual tradition in a distinctive way within the larger historical reality of colonial anglo-America and the United States. The period covered is from initial exploration and settlement of Sir Walter Raleigh and John Smith to the present.
AMH 4930 Topics in U.S. History
Selected topics or themes in U.S. history. The themes will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). [3]

## EDF 3521 Education in History

An examination of the concepts of childhood, and processes of social initiation in differing historical contexts.

EUH 3100 The Ancient Near East
The history of ancient Mesopotamia, Egypt and

## History

Israel. The course will stress the interaction of social structure with religion in each of the three societies.

EUH 3142 Renaissance and Reformation
A study of the development of humanism in ltaly and Protestantism in Germany, and the impact of these new philosophies on Europe in the fourteenth, fifteenth and sixteenth centuries. [2]
EUH 3186 King Arthur And His Knights
A study of Arthurian romance from the 12th to the 15 th centuries, as the self-image of aristocracy. The following themes will be emphasized: chivalry, adventure, erotic idealism, Christian consecration and the creation of secular individualism. [1]

EUH 3203 Europe in the 17th Century
An examination of the "radical century" which defined many of the values of the modem 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
The society, politics and culture of Ancient Greece and Rome.

EUH 3452 The French Revolution and the Enlightenment
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
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

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
This course deals with Russia since 1917 and focuses particularly on the theory and practice of communism in the Soviety Union. The impact of communism on the lives of the people, whether in politics, economics, or culture, will be examined. [2]

## EUH 3601 Medieval Culture

Selected topics in the cultural history of Europe from 500 to 1500: epic and knightly romance; Christian theology and spirituality; scholastic
philosophy; Romanesque and Gothic arts; the rise of literature in the vernacular; the culture of the layman; and the contribution of women. [1]
EUH 3611 European Cultural History
An examination of changes in the social and political structure of Europe through film, art and literature. This is an introductory course to both European social history and cultural history in the last two hundred years. [2]

EUH 4006 Modem Europe, 1789-Present
European history from the French Revolution until today, with special attention to liberalism, nationalism, socialism, communism and fascism. The course will touch on the main points of the national histories of the various European states, from Britain to Russia. [2]
EUH 4121 Europe in the Earlier Middle Ages (3) 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 (3) 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 selfconsciousness; heresy, inquisition, and social revolution. [1]

## EUH 4187 Topics in Medieval European History

Selected topics or themes in Medieval history. The themes will vary from semester to semester. 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 (3) The major events and movements which signaled the beginning of modemization in Europe: the voyages of discovery, the new representations in art, and the rise and triumph of religious dissent. [2]
EUH 4201 Early Modem Europe 1650-1789 (3) European society as it developed between the English Civil War and the French Revolution. The consolidation of the "Old Regime." [2]

EUH 4205 Modem Europe, 1789-1914
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, 1914-Present
(3) Europe from the first World War to the present.

The course will explore the impact of industrialization, the World Wars, and the rise of fascism and communism. [2]

EUH 4286 Topics in European History
An examination of selected topics or themes in early modern and modem European history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). [2]
EUH 4520 The Classical Age: England in the 18th Century
Exploring one of the greatest eras in English history, this course will cover the growth of the British empire, crown and parliament, the industrial revolution, social problems and English culture.

HIS 3001 Introduction to History
Approaches to the study of the Western tradition. Required of all majors and those seeking sertification to teach history.
HIS 3104 Ideas and Methods of History
An overview of the philosophy and treatment of history through the ages and of modem methods to research it. Can be substituted for HIS 3001 to fulfill major and certification requirements.

## HIS 3244 History of Communism

A survey of the history of communism from the writings of Marx through the Soviet, Chinese, and Cuban revolutions. The course will consider communism both in theory and in practice.
HIS 3308 War and Society
An examination of the ways societies have organized themselves for external and internal wars. The course will also explore the changing conduct of war, the image of the warrior, and the ways in which military institutions have crystalized class structures.

HIS 3473 The History of Science and Technology
This course will examine the history of westem 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 semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule).
HIS 4282 Europe in the Americas:
Comparative Colonial Societies
A comparative analysis of the colonial experiences of Spanish Latin America and British North
(Continued)

## Humanities

America. This course will discuss economic, social, political, religious and cultural growth, focussing on influences of the mother countries.
HIS 4480 Seminar in American Studies
Exploration in depth of topics in American Studies.
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 semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule).
HIS 5289 Comparative History
A study of specific topics in history that cut across regional, national and chronological lines. The topics will change from semester to semester, 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 (3)
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 semester to semester, and with a change in content, the course may be repeated. (The theme will be announced in the yearly schedule).

## LAH 3020 Introduction to Latin American History

This course is an introduction to the history of the major social, cultural and political institutions of Latin America. It covers both the colonial and national periods of leading Latin American countries. [4]

## LAH 3410 Mexico and the Caribbean

The themes that have generated the histories of several nations in and around the Caribbean since the nineteenth century. [4]

LAH 3482 Cuba from Bourbons to Castro
The socio-conomic and political setting in Cuba since the mid-nineteenth century. [4]

LAH 4132 The Formation of Latin America (3) An examination of Latin America in the formative period, focusing upon the Iberian experiences, conquest, reconquest, ethnic amalgamation, and Latin American economic and social organization in the 15 th and 16 th centuries. [4]

LAH 4133 Spain in America
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 (3) 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 Twentieth Century Latin America (3) 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

Selected topics or themes in Caribbean history.
The themes will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). [4]
LAH 4511 Order And Revolt in Argentina
A survey of the social and political formation of the Argentine nation, starting with the colonial legacy and ending with the contemporary political situation. [4]
LAH 4932 Topics in Latin American History (3) 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 be announced in the yearly schedule). [4]
LAH 5305 20th Century Latin
American History
(3)

Advanced analytical studies of socioeconomic phenomena in Latin America: race relations, authoritarianism, modernization, migration, capitalism and the State.
WOH 3002 History of Westem Civilization (3) Westem Civilization from the Ancient Near East until today, with special attention to the social structures and values as they developed over time. Literature, art, philosophy and other aspects of culture will be examined through readings, art slides, films and lectures in order to develop a comprehensive view.
WOH 3244 The Contemporary World, 1945-Present
An examination of the world-wide political struggle between capitalism and communism. The course will stress domestic as well as intemational power-political rivalries. Special emphasis will be given to Japan, China, Cuba, France, the United States, India, and Eastem Europe.

WOH 3280 Women's History
A survey of the position of women in the major
world civilizations. The course examines the position of women 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
A survey of the major currents of Jewish history.
WOH 3300 Third World Civilizations
The civilizations of Asia, Africa and Latin America from ancient times until today, with special attention to the social structures and values of each civilization. Literature, art, philosophy and religion will be examined through readings, art slides, films and lectures in order to develop a comprehensive view. [4]

## Humanities Major

Charles Elkins, Associate Professor of English and Director of Humanities
Barbara Forbes, Assistant Professor of Art
Kenneth Henley, Assistant Professor of Philosophy
Ramon Mendoza, Professor of Modern Languages
Joyce Peterson, Assistant Professor of History Richard P. Sugg, Associate Professor of English

The Humanities program at FI.U.'s Bay Vista campus offers a well-structured, interdisciplinary curriculum. The goal envisioned by this program is to confront the student with those values and issues conceming 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 concems in society and his views of the world. These concems 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 production 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

## Humanities

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 postgraduate degrees requiring a general educational background, such as Law School, International Relations, and all the traditional Liberal Arts programs.

A grade of C or better in all courses required for the major is necessary for graduation.
LOCATION: Bay Vista 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:
A. Three required Humanities courses:

1. HUM 3211 Introduction to Humanities: Ancient Through Medieval World
2. HUM 3230 Introduction to Humanities: Renaissance Through Modem World
3. HUM 4920 Humanities Colloquium
B. Five courses chosen from the contributing disciplines (English, Modern Languages, Philosophy and Religion, History, and Visual Arts). No more than two courses may be from the same discipline.
C. Three courses chosen from additional Humanities courses; these additional Humanities courses include:
*HUM 3813 and 3941
Applied Humanities
*HUM 3302, 3872, and 3891
Perspectives of the
Humanities
*HUM 4450 and 4491
Cultural Heritages and
Cultural Changes
*HUM4391 and 4542
Human Concems
HUM 4406 The Film
HUM 4496 Latin American
Civilization
*HUM 4906 Humanities Independent Study
*(With instructor's permission, these may
be repeated for credit.)
D. Nine general elective courses. These courses may be outside of the Humanities and its contributing disciplines.

Language Requirement:
Students must demonstrate a reading knowledge of a language other than their native tongue
equivalent to the end of the third semester of beginning language instruction. This requirement may be satisfied by completing 9 hours of language instruction or by passing a competency examination administered by the Department of Nodem Languages.

## Course Descriptions

## Definition of Prefixes

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

## HUM 3211 Introduction to the Humanities: Ancient World Through Medieval World

Explores the culture of the ancient world and medieval from an interdisciplinary perspective and studies the varying conceptions of the individual, society and nature.

## HUM 3230 Introduction to the Humanities: Renaissance Through Modern World

Explores the culture of the Renaissance and modem world from an interdisciplinary perspective and studies the varying conceptions of the individual, society and nature.

HUM 3813 \& 3941 Applied Humanities
Explores the nature, role and impact of the Humanities in society and addresses specific methodological and practical issues to be announced in advance. The requirements of this course may include projects outside the classroom. (With consent of the instructor, this course may be repeated for credit).

## HUM 3302 \& 3872 \& 3891 Perspectives of

 the HumanitiesAddresses topics in the Humanities through specified disciplinary approaches. (With consent of the instructor, this course may be repeated for credit).
HUM 3949 Cooperative Education in Humanities
A student majoring in Humanities may spend one or two semesters fully employed in industry in a capacity relating to the major.

HUM 4450 \& 4491 Cultural Heritages and Cultural Changes
Focuses upon various cultures and their development, including such topics as: cultural evolution and revolution, ethnicity and pluralism, and subcultures and countercultures. (With consent of the instructor, this course may be repeated for credit.)

HUM 4391 \& 4542 Human Concerns
Examines concerns important to the human condition, including varying conceptions of human nature, the relation of the individual to society, the quest for identity, the search for meaning

through literature, art and social institutions. (With consent of the instructor, this course may be repeated for credit).
HUM 4920 Colloquium
Addresses a specific topic in depth from a variety of perspectives. Topics will be announced in advance. (With consent of the instructor, this course may be repeated for credit.)

## International Relations Major

Ken 1. Boodhoo, Associate Professor and Chairperson<br>Antonio Jorge, Professor<br>Ralph S. Clem, Associate Professor<br>Thomas A. Breslin, Assistant Professor<br>Farrokh Jhabvala, Assistant Professor<br>Charles G. MacDonald, Assistant Professor<br>Ewart Archer, Assistant Professor

LOCATION: Tamiami and Bay Vista Campuses DEGREE: Bachelor of Arts
A grade of $C$ or better in all courses required for the major is necessary for graduation.

## LOWER DIVISION PREPARATION:

Recommended Courses: Economics, foreign languages, geography, history, international relations, introduction to statistics, political science, sociology.

## UPPER DIVISION PROGRAM:

Major:
Courses:

## Required Courses:

GEA 3000 World Regional Geography
INR 3003 Foundations of International Relations
INR 3013 Development of Intemational Relations Thought
$\begin{array}{ll}\text { INR } 4605 & \begin{array}{l}\text { Approaches to International } \\ \text { Relations }\end{array}\end{array}$
Breadth Requirements:
At least one course in each of the following:
Area studies (regional courses on Europe, the Caribbean, Latin America, Africa, Asia, or the
Soviet Union)(AS)

Population Studies or Geography . . . . . . . (PG)
Intemational Law or Organization ........(IL)

## International Relations

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Issues and Problems in Intemational
    Relations
Electives: 10
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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).

20
Minor in International Relations: 5 A student majoring in another academic discipline will eam a minor in International Relations by successfully completing approved coursework in the Department of International Relations. This program must include:

1) Foundations of Intemational Relations (INR 3003)
2) World Regional Geography (GEA 3000) or an approved course in Geography
3) A course in Intemational Law or Organization
4) Twoelectives in Intemational Relations

THE DUAL MA.JOR: The student is encouraged to pursue a dual major within the upper division requirement. The dual major program allows a student to add an important intemational dimension (and certification) in other academic fields.

## Course Descriptions

## Definition of Prefixes

CPO - Comparative Politics; GEA -Geography-Regional (Area); HFT - Hospitality, Food, Tourism; 1NR - International Relations; POS - Political Science; PUP - Public Policy; SOC - Sociology.

CPO 3326 Population and Geography of the Caribbean (PG)
Introduction to the physical, cultural and political geography of the Caribbean. Emphasis on population pattems, problems of population growth, and ethnicity.
GEA 3000 World Regional Geography
A systematic survey of the major regions and countries of the world, with regard to their physical, cultural, and political characteristics. Emphasis upon climate, natural resources, economic development, and population pattems.

## GEA 3172 Geography of the Developing World (PG)

Examines the geographical factors shaping the differences between more and less-developed countries, and prospects for narrowing these in the future. Stress is laid on the need to utilize efficiently the physical environment and the human barriers to such utilization.

## GEA 3400 Population and Geography of Latin America (PG)

 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 (PG)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 (PG)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 (PG)
Introduction to the physical, cultural, and political geography of the Middle East. Emphasis on population patterns, natural resources, and economic development.
GEA 3710 Population and Geography of China (PG)
Introduction to the physical, social and cultural geography of China. Emphasis on population patterns, problems of population growth, regionalism.

## GEO 3471 Political Geography (PG)

Emphasis is given to man's organization of space, particularly as it pertains to the nation-state. Factors instrumental to determining the viability of states are included stressing unifying-repelling forces.

GEO 5415 Topics in Social Geography (PG, IP)(3) 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 (IP)
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 (IP)

A course for the student familiar with tourism in the context of intemational affairs; tourism as migratory aspect; tourism as international medium; tourism and the export of technology; tourism and national dependency; the marketing

of globalism through tourism; others. The course includes strategies laboratory.
INR 3003 Foundations in International Relations
An examination of intemational political, economic, and social systems. Emphasis is placed on basic approaches to the study of international relations.
INR 3004 Patterns of International
Relations (IP)

The course deals with the development and practice of key concepts of intemational relations as seen in the historical perspective of the 19th and 20th centuries. The course is structured so as to emphasize the continuity and coexistence of the several concepts during the 20th century, and to provide an outline of modem diplomatic history.
INR 3013 Development of International
Relations Thought

The nature and characteristics of intemational relations from antiquity to the end of the First World War. Examination of the religiophilosophical, socio-economic and political ideas and systems associated with them. Study of select historical occurrences and patterns of social change and their interaction with the dynamics of intemational relations. Prerequisite: INR 3003.
INR 3031 The Future of the International
System (IP)
Explores probable and improbable intemational futures through the use of simulations, gaming, and speculative literature. Focuses upon altematives to present intemational arrangements.
INR 3043 Population and Society (IP)
Introduction to basic demographic concepts: fertility, mortality, migration, urbanization. Discussion of economic development, modemization 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 (IP)
Examines selected world and regional issues and problems. Topics vary according to the instructor.
INR 3214 International Relations of Europe (AS)
Ar examination of the international, social, economic, and political life of contemporary Europe.

## International Relations

Emphasis given to intemational organizations and the trend toward economic and political integration.
INR 3224 International Relations of
East Asia (AS)
A survey of the patterns of intemational relations in the post-colonial periods in east and southeast Asia. Political, military and economic aspects examined.
INR 3226 International Relations of South Asia (AS)
A study of South Asia as a regional intemational system with special emphasis on the period 1945 to the present. Interaction between the regional and world systems. Role of the super-powers.
INR 3232 Intemational Relations of China (AS)
An examination of the development of China's international relations in the 20th century. Special attention to the development of institutional mechanisms for diplomacy and to problems of integrating domestic and foreign policies.
INR 3245 International Relations of Latin America (AS)
An examination of international, social, economic, and political life of Latin America. Emphasis given to the role of intemational organizations; regionalism; and the trend toward economic integration.
INR 3246 International Relations of the Caribbean (AS)
An examination of the intemational social, economic, and political life of the Caribbean. Includes English, Spanish, and French speaking regions.

## INR 3274 Intemational Relations of

 the Middle East (AS)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 3403 International Law (IL)
Introduction to the legal concepts, framework and institutions which play a role in intemational relations theory and practice.
INR 3404 Principles of Public International Law (IL)
A study of public intemational law principles in selected areas such as treaties; state succession; law of the sea; air and space law; law of international economic institutions; international conflict resolution procedures.

INR 3502 International Organizations (IL, IP) (3) 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 3949 Cooperative Education in

 Social SciencesA student majoring in one of the Social Sciences (Economics, Intemational 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.

INR 4024 Ethnicity and Nationality: World Patterns and Problems (IP)
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 microscales; country, region, city, neighborhood. The consequences of modemization and economic development.
INR 4033 International Communication (IP) (3) 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 (IP) (3) 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 (IP)
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 intemational economic and political implications deriving therefrom.
INR 4247 Caribbean Regional Relations (AS) (3) 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 4261 Science, Technology and Intemational Relations (1P)
A study of the importance and relevance of science and technology to our understanding of international relations. Emphasis will be placed on national scientific policies of major countries, their implication on the international community and the major national and intemational agencies, organizations, treaties, and programs.
INR 4283 International Relations, Development, and the Third World (AS, IP)
(3) 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 inter-
national political and economic organizations in the development process.
INR 4404 International Protection of
Human Rights (IL, IP)
Development of the concem of the intemational community with the rights of individuals and groups and the institutional mechanisms which have been set up for their protection.
INR 4408 Topics in International Law (IL, IP) (3) An intensive examination of selected topics in intemational 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 (IL, IP)
World order and intemational relations. Current trends in the theory and practice of intemational law. Progressive development of intemational 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

 RelationsAnalysis 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 Intemational Relations (3)
Varies according to the instructor.
INR 4949 Cooperative Education in

> Social Sciences

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

## INR 5906 Independent Study

(VAR)
INR 5935 Topics in International Relations
Varies according to the instructor.
INR 6605 Contemporary International System (3) Study of International Relations theory supplemented with a consideration of legal institutional and developmental issues. Prerequisite for MIB students: INR 6603 (World Politics).
POS 4692 Law and the Process of
Change (IL, IP)

An exploration of the role of law and legal institutions in the process of modernization, with particular emphasis on developing countries.
(Continued)

## Liberal Studies

## PUP 3206 International Law and the Environment (IL, IP)

Introduction to the growing body of intemational 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 UN. Environmental Agency.

## Liberal Studies Major

John F. Stack, Jr., Director of Liberal Studies and Assistant Professor of Political Science

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, two courses to be taken by Liberal Studies students as early in their work as possible; (2) Interdisciplinary Colloquia, two courses, involving faculty from several departments of the College, and dealing with topics which cut across disciplinary lines; (3) Scientific Analysis, two courses 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 which deal with the analysis of literary and historical texts or works of art and music; (5) Social Analysis, two courses 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 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.

A grade of "C" or better in all courses required for the major is necessary for graduation.

LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Arts LOWER DIVISION PREPARATION:
Required Courses: none.
Recommended Courses: Arts and Sciences concentration recommended.

## UPPER DIVISION PROGRAM:

Semester Hours

## Major:

$$
\begin{aligned}
& \text { Required Courses: } 11 \text { courses } \\
& \text { Courses offered by any of the units } \\
& \text { of the College of Arts and Sciences, } \\
& \text { chosen in accordance with academic } \\
& \text { guidelines of the Program of Liberal } \\
& \text { Studies, to meet requirements in the } \\
& \text { four following areas: }
\end{aligned}
$$

$\qquad$
Humanistic Analysis 6
Social Analysis 6
Artistic Creation 3
Interdisciplinary Colloquia offered by the Liberal Studies Program
Foundations of Liberal Studies
Electives: The remaining hours will be taken as electives.
Limitations: If the student wishes to obtain a second major concurrently, no more than 3 courses 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 2 courses 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 6 courses in one discipline.

## Course Descriptions

## Definition of Prefixes

IDG-Interdisciplinary Studies
IDS 3930 Foundations of Liberal Studies (3)
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 3949 Cooperative Education in Liberal Studies

A student majoring in Liberal Studies may spend several quarters fully employed in industry in a capacity relating to the major.
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 (3)

Individual sections will study, from an interdisciplinary perspective, issues selected and presented jointly by college faculty. Specific topics will be announced in advance.
DS 4949 Cooperative Education in Liberal Studies
A student majoring in Liberal Studies may spend one or two semesters fully employed in industry in a capacity relating to the major.

## Mathematical Sciences

Samuel S. Shapiro, Professor and Chairperson Robert C. Fisher, Professor
Malcolm H. Gotterer, Professor
David Barton, Associate Professor
Jack Beizer, Distinguished Lecturer
Toby S. Berk, Associate Professor John C. Comfort, Associate Professor
Gauri L. Ghai, Associate Professor
William T. Kraynek, Associate Professor
Richard L. Rubin, Associate Professor
Anthony C. Shershin, Associate Professor
James F. Slifker, Associate Professor
Willie E. Williams, Associate Professor
Carlos W. Brain, Assistant Professor
Paulette Johnson, Assistant Professor
Arie Kaufman, Assistant Professor
Wesley Mackey, Assistant Professor
Geoffrey E. McKenty, Assistant Professor
Jainendra K. Navlakha, Assistant Professor
Domitila Fox, Instructor
Carol D. Henley, Instructor
Ina Parks Howell, Instructor
Orlando Sauleda, Instructor
Stephanie Siegel, Instructor
Matrid H. Whidden, 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,
(Continued)

## Mathematical Sciences Statistics

the equivalent course must be taken at the University, and will be counted at a non-major elective. The equivalent courses are: MAC 341I MAC 3412 - MAC 3413 (Calculus); COP 3112 (Programming); MAS 3103 (Linear Algebra); and MAP 3302 (Differential Equations).
UPPER DIVISION PROGRAM:
Major:
Required Courses:
MAA 3201 Introduction to Analysis
MAA 4211 Advanced Calculus
MAS 4301 Algebraic Structures
STA 332I Mathematical Statistics 1
In addition, three courses from each of the
following lists.
LIST (1)
MAD 4203 Introduction to
MAA 4402 Complex Variables
MTG 32 I2 Geometry
MAS 5215 Number Theory
MAA 4212 Topics in Advanced Calculus
MAS 4302 Topics in Algebraic Structures
MTG 4302 Topology
LIST (2)
MAP 4401
Advanced Differential Equations
MAD 3305
MAP 3103
STA 3322
MAD 3401

Graph Theory Mathematical Modeling Mathematical Statistics 11 Numerical Analysis

Electives: The balance of the 60 semester hour requirement for graduation can be chosen from any courses in the Univeristy approved by the student's advisor.
Minor:
Required Courses: Calculus, including multivariable calculus. The equivalent courses at FIU are MAC 341I - MAC 3412 - MAC 3413.
Four courses from those approved for the Mathematics 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/her advisor for an appropriate substitution for the requirement of the minor.
A grade of "C" or better in all courses required for the major is necessary for graduation.

## Statistics

LOCATION: Tamiami Campus Only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: Calculus including multivari-
able calculus and an introductory course in computer programming.
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); and COP 3112 (Programming).
UPPER DIVISION PROGRAM:
Major:
Required Courses:

| MAS 3103 | Linear Algebra |
| :--- | :--- |
| STA 3321 | Intro to Mathematica! <br> Statistics 1 |
| STA 3322 | Intro to Mathematical <br> STA 3163 |
| Statistics 11 <br> Statistical Methods 1 |  |
| STA 3164 | Statistical Methods 11 |

Five additional approved Mathematical Sciences courses, with at least three in statistics
Electives: The balance of the 60 semester hour requirement for graduation can be chosen from any courses in the University approved by the student's advisor.
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:

## Required Courses:

| STA 3321 | Introduction to <br> Mathematical Statistics I <br> Introduction to |
| :--- | :--- |
| STA 3322 | Mathematical Statistics 11 |
| STA 3163 | Statistical Methods I <br> STA 3164 |
| Statistical Methods II |  |

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 the 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.
A grade of "C" or better in all courses required for the major is necessary for graduation.

## Computer Science

LOCATION: Tamiami and Bay Vista Campus DEGREE: Bachelor of Science LOWER DIVISION PREPARATION:
As part of the 60 semester hours of lower division coursework necessary to enter this upper division major, note the following recommendations and / or course requirement.

## Required Courses:

Computer Programming in COBOL


Computer Programming in some other high level language

Calculus through infinite series
The equivalent courses at FIU are:
COP 3122 COBOL and Data
Processing
COP 3112 Introduction to Computers
MAC 3411-2 Calculus I \& 11
UPPER DIVISION PROGRAM:
Major:
Required Courses:
ENC 3343 Basic Technical Writing

STA 3033 Introduction to Probability and Statistics for CS or
STA 3321-2 Mathematical Statistics 1 \& II
COP 3402 Assembly Language Programming
MAD 3104 Discrete Mathematics
MAD 3504 Introduction to Theory of Algorithms
COP 3522 Programming Methodology
COP 3530 Data Structures
CDA 4101 Structured Computer Organization
COP 4610 Operating Systems Principles
Plus one course from each of the following two lists.
LIST (1)

MAD 3305
MAD 3401
MHF 4302
COT 5320
MAD 4203
LIST (2)
CDA 3040
CDA 4163
CDA 4171

CAP 5721
COP 5540

COP 5640 Compiler Construction
Graph Theory Numerical Analysis Mathematical Logic Theory of Computation Introduction to Combinatorics

Computer Hardware Fundamentals Data Communications Mini-computer Architecture and Applications Computer Graphics Data Base and File Organization
Compiler Construction

# Mathematical Sciences <br> Computer Sciences 

Electives: The balance of the 60 semester hours required for graduation can be chosen from any courses in the university approved by the student's advisor.
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:

| COP 3112 | Introduction to |
| :--- | :--- |
| Computers |  |
| COP 3402 | Assembly Language <br> COP 3522 |
| Programming <br> Programming |  |
| COP 3122 | Methodology <br> Data Processing and <br> COBOL |

Plus, one other course in computer science at the 3000 or 4000 level, acceptable for the major program.
Remarks: No mathematical sciences course 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 subsitution for the requirement of the minor.
A grade of " C " or better in all courses required for the major is necessary for graduation.

## Mathematical Sciences

## LOCATION: Tamiami Campus Only

## DEGREE: Bachelor of Science

LOWER DIVISION PREPARATION:
Required Courses: Calculus including multivariable calculus; introductory courses in computer programming; 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 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 PREPARATION:

Major:
Required Courses:
COP 3402 Assembly Language Programming
COP 3522 Programming Methodology
MAD 3104 Discrete Mathematics
MAD 3504 Introduction to the
Theory of Algorithms

## MAD 3401 Numerical Analysis <br> MAP 4401 Advanced Differential Equations

STA 3163-4 Statistical Methods I \& 1 I
In addition, two courses from the following list:

$$
\begin{array}{ll}
\text { MAA 4402 } & \text { Complex Variables } \\
\text { COP 3530 } & \text { Data Structures } \\
\text { MAD 3305 } & \text { Graph Theory } \\
\text { MAP 3103 } & \text { Mathematical Modeling } \\
\text { STA 5446 } & \text { Probability Theory }
\end{array}
$$

Electives: The balance of the 60 semester hour requirement for graduation can be chosen from any courses in the University approved by the student's advisor.
Minor:
Required Courses: Calculus, including multivariable calculus. The equivalent courses at FIU are MAC 3411-MAC 3412-MAC 3413.
Four courses from those approved for the Mathematical Sciences 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 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.
A grade of "C" or better in all courses required for the major is necessary for graduation.

## Mathematical Sciences

LOCATION: Tamiami Campus Only
DEGREE: Master of Sciences in Mathemical Sciences
Admission to the program:
A Bachelor's degree or equivalent from an accredited university or college.
A "B" average or better in all work attempted while registered as an upper division student for the Bachelor's degree.
Graduate Record Examination (verbal or quantitiative portions) taken within the past 5 years.
Three letters of recommendation from persons in position to judge the applicant's potential success in graduate study.
Approval of the graduate committee.
Prerequisites:

| COP 3112 | Introduction to <br>  <br> Programming <br> (FORTRAN); |
| :--- | :--- |
| MAP 3302 | Differential Equations; |
| MAC 3411-2-3 | Calculus I \& II and <br> Multivariable Calculus; |
| MAS 3103 | Linear Algebra; |
| STA 3321-2 | Mathematical Statistics 1 |
| STA 3163-4 | \& Il or |
| Statistical Methods 1 \& II |  |

## Required Courses: <br> Semester Hours

MAP 5117 Mathematical and
Statistical Modeling
COP 5510 Fundamentals of Computer Science
STA 5206
Design of Experiments
STA 5606 Mathematical Techniques of Operations
Research
MAP 6127 Simulation and
Modeling

## Electives

Research Project
Remarks: Students who have taken the undergraduate course COP 3522 or COP 3530 may not take COP 5510 and must substitute another graduate course. In addition to these five courses, an additional three approved courses at the graduate level must be chosen. One graduate course may be taken outside the department with the approval of the graduate committee. It is recommended that a data base course be taken either within the department, COP 5540, or from the School of Business, MAN 6837. For the final course, the student will be required to apply the techniques developed in his/her program of studies to the solution of a practical problem. The 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.

## Computer Science

LOCATION: Tamiami Campus Only
DEGREE: Master of Science in Computer Science
Admission to the Program:
A Bachelor's Degree in Computer Science or equivalent degree from an accredited university or college, or a Bachelor's degree from an accredited univerisity or college and completion of courses COP 5510, Fundamentals of Computer Science 1 and COP 5511, Fundamentals of Computer Science II, with at least a "B" in each, and
A " $B$ " average or better in all coursework attempted while registered as an upper division student for the Bachelor's degree, and
Acceptable courses in Calculus and Statistics, and
Graduate Record Examination (GRE) of 650 quantitative and 500 verbal taken within the last 5 years, and
Three letters of recommendation from persons in a position to judge the applicants' potential success in graduate study, and
Approval of the Graduate Committee.

## Mathematical Sciences

| Graduate Program of Studies: |  |
| :--- | :--- |
| CIS 6397 | Seminar in Contemporary <br>  <br> Computer Science |
| COP 6515 | Structured Programming |
| COP 6614 | Advanced Operating |
|  | Systems |
| COT 6315 | Analysis of Algorithms |
| STA 6807 | Queuing and Statistical <br>  <br> Models |
| CIS 6971 | Thesis |

In addition, students must choose three courses from the following list, subject to the approval of the Graduate Committee.

| CAP 5721 | Computer Graphics <br> CDA 6166 |
| :--- | :--- |
| CIS 6327 | Statisuted Processing <br> Performance Evaluation |
| COP 5540 | Data Base and File <br> Organization |
| COP 5640 | Compiler Construction <br> COP 6555 |
|  | Survey of Programming <br> Languages |
| COT 5320 | Theory of Computation |
| COT 6127 | Theory of Formal |
| CRM 6121 | Languages |
| Computer Management |  |
| MAD 5405 | Numerical Methods <br> MAP 6127 |

After completion of all other required courses, students must conduct a research thesis. The topic must first be approved by the faculty member who will supervise the research, then by the Graduate Committee. The thesis will be accepted only after being read and approved by a Reading Committee. An oral defense is required before the Reading Committee.
Remarks: The program requires a " B " average or higher for completion. A maximum of two courses may be transferred into the program from outside of Florida International University, subject to the approval of the 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; HGA - 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 5721 Computer Graphics
(3)

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 3412 and either COP 5511 or COP 3530 and CDA 4101.

## CDA 3040/ETE 3650 Computer Hardware Fundamentals

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 3504.

## CDA 4101 Structured Computer Organization

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

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 ApplicationsAn 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.

## CDA 6166 Distributed Processing

Study of distributed systems of user and equipment using data communications facilities. Analysis of system architecture, hardware, and software for system design. System integrity and performance issues and techniques are examined. Prerequisites: COP 6614 and CDA 4163.
CIS 3905 Independent Study
(VAR)
Individual conferences, assigned readings, and reports on independent investigations.
CIS 3932 Special Topics (VAR) A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 4905 Independent Study (VAR)
Individual conferences, assigned readings, and reports on independent investigations.

## CIS 4932 Special Topics

(VAR)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.
CIS 5908 Independent Study
(VAR)
Individual conferences, assigned readings, and reports on independent investigations.
CIS 5934 Special Topics (VAR)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.
CIS 6327 Statistical Computer Performance Evaluation
An introduction of the tools for quantitative, statistical and rational design, analysis, and optimization of complex computer systems. Prerequisites: STA 6807 and COP 6614.

## CIS 6937 Seminar in Contemporary Computer Science

Research Seminar in Contemporary Computer Science. Topics will vary from term to term. Prerequisite: Permission of instructor.

CIS 6971 Thesis
(10)

Prerequisite: Completion of all other requirements for the M.S. degree in Computer Science.
COC 3300 Introduction to Computers and Computer Applications
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).
$\operatorname{COC} 3400$ Computers and Society
A course for the citizen who is interested in the effects of computers upon our society. The major focus will be upon social, political and ethical considerations: what computers are and how they work; applications, such as data banks, government uses, simulation; considerations such as privacy and the police state, the cashless society, computers and business, computers and the quality of life, systems analysis and the planned society. The course is oriented toward the non-scientist and requires no background in mathematics, computer science, or social science. As part of the course, students will learn to write and run a simple computer program.

COP 3112 Introduction to Computers
A course in the fundamentals of digital computer programming. The concept of an algorithm; flow charting; programming; testing

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and debugging. Numerical and non-numerical techniques. The syntax and semantics of FORTRAN IV.
COP 3122 Data Processing and COBOL (3) A second course in programming, oriented toward data processing applications. Various techinques 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 3112.
COP 3172 Basic Programming for Business (3) 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 Assembly Language Programming

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 3522 Programming Methodology
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

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 3504 and COP 3522.

COP 4610 Operating Systems Principles
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 5510 Fundamentals of Computer Science 1
(6)

This accelerated and intensive course is for beginning graduate students without a Bachelor's of Science in Computer Science. It
covers the design of programs and associated data structures. Prerequisites: Admissions into a graduate program. COP 3112, MAC 3412 and STA 3033 or equivalent.

COP 5511 Fundamentals of Computer Science II
This is a continuation of COP 5510 covering computer organization and operating systems. Prerequisites: Admissions into a graduate program. COP 3402 and either COP 5510 or both COP 3522 and COP 3530.

COP 5540 Data Base and File Organization (3) 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 Compiler Construction
Basic techniques of compilation; self-compilers; syntax encoding and recognition; code generation and optimization. Prerequisites: COP 3522, MAD 3504, and COP 3530.

COP 6515 Structured Programming
Study of systematic techniques of program control and development, including proof of program correctness and use of advanced programming techniques. Prerequisites: COP 3522 and COP 3530; or COP 5510.

## COP 6555 Survey of Programming Languages

This course consists of a comparative study of programming languages including LISP (or SNOBOL-4), PASCAL, APL, PL/I (or ALGOL-60) and ALGOL-68. Emphasis is given to different data structures available, prominent features of the language and their applications. Some criteria to compare different languages are discussed and a few languages are compared as examples. Prerequisites: COP 3522 and COP 3530 or COP 5510.

COP 6614 Advanced Operating Systems
Topics in operating system design: concurrent, scheduling, security and protection, virtualizable architectures and monitors. The UNIX operating system will be used as the basis for a major programming project. Prerequisites: COP 4610 or COP 5511; and STA 6807.
COT 5320 Theory of Computation
An introduction to abstract machine theory, combinatorial systems and computable functions. Prerequisites: MAD 3504.
COT 6127 Theory of Formal Languages (3) Elements of language theory are introduced by way of describing regular, context-free, context-sensitive and generalized languages. Their properties and some of the existing parsing techniques are discussed. Prerequisites: COP 3530 or COP 5510.

COT 6315 Analysis of Algorithms
Complexity behavior of algorithms is described for Set Manipulation, Graph Theory, and Matrix Manipulation problems, among others. P and NP classes of problems reveal an inherent difficulty in designing efficient algorithms. Prerequisites: COP 3530 or COP 5510.
CRM 6121 Computer Management
This course deals with the effective evaluating and administration of the computer function within an organization. No prerequisites.

MAA 3201 Introduction to Analysis
Topics include: naive set theory, functions, cardinality, sequences of real numbers and limits. Emphasis on formal proofs. Prerequisite: MAC 3413.

MAA 4211 Advanced Calculus
An intense study of the foundations of calculus. Topics may include: the real number system, continuity, differentiation, Riemann Stieltjes integration, and series of functions. Note: The student must complete MAA 3201 before attempting this course. Prerequisites: MAC 3413, MAS 3103 and MAA 3201.
MAA 4212 Topics in Advanced Calculus
A sequel to MAA 4211. Topics may include: theory of integration; analysis in several variables; and Fourier series. Prerequisite: MAA 4211.

## MAA 4402 Complex Variables

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, and MAP 3302 or MAA 4211.

MAC 3132 Pre-calculus Mathematics
Topics to be covered include: functions, exponential and logarithmic functions, trigonometry and the basics of analytic geometry. Prerequisites: Two years of high school algebra.
MAC 3233 Calculus For Business
A one quarter introduction to the basic notions of calculus. Specific topics include: Differential calculus using polynomial, exponential and logarithmic functions, and its application to optimization; integral calculus with area and probability applications. Prerequisites: MAC 3132 or working knowledge of algebra.
MAC 3411-MAC 3412 Calculus 1 \& $11 \quad$ (3-5) 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 intro-

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duction 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
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
Sets, functions, relations, permutations and combinations, propositional logic, matrix algebra, graphs and trees. Prerequisites: COP 3112 and MAC 3411.

MAD 3305 Graph Theory
An introduction to the study of graphs. Topics include the following: paths and circuits, connectedness, trees, shortest paths, networks, planar graphs, the coloring of graphs and directed graphs. Applications of graphs to computer science will be discussed. Prerequisite: COP 3112 and either MAS 3103 or MAD 3104.

## MAD 3401 Numerical Analysis

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 3112 and MAC 3412 and either MAS 3103 or MAD 3104.

MAD 3504 Theory of Algorithms
Boolean algebra, switching circuits, finite state machines, formal languages and models of computation. Prerequisite: MAD 3104.

MAD 4203 Introduction to Combinatorics (3) A survey of the basic techniques of combinatorial mathematics. Topics will include the Pigeonhole Principle, Binomial Coefficients, Inclusion-Exclusion, Recurrence Relations, and Generating Functions. Prerequisites: MAC 3413 or both MAC 3412 and MAD 3104.

MAD 5405 Numerical Methods
Advanced ideas and techniques of numerical analysis for digital computation. Topics include: linear and nonlinear systems, ordinary differential equations, continuous system modeling techniques and languages. Prerequisites: MAD 3401, MAS 3103 and MAP 3302.

MAE 4810-MAE 4811 Foundations of Mathematics I \& Il
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 Mathematical Modeling and Applications
A course to provide an understanding of the use of mathematical models in the description of the real world. Basic principles in the philosophy of formal model building as well as specific models will be considered. Prerequisites: MAS 3103 and MAC 3413 or MAP 3302.

MAP 3104 Topics in Mathematical Modeling (3) A sequel to MAP 3103. In-depth study of techniques listed in the catalog description for MAP 3103. Prerequisite: MAP 3103.

## MAP 3302 Differential Equations

(3)

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.

MAP 4401 Advanced Differential Equations (3) A second course in differential equations. Topics may include: Bessel functions and other special functions arising from classical differential equations, Sturm-Liouville problems, partial differential equations, transform techniques. Prerequisite: MAP 3302 and MAC 3413.
MAP 5117 Mathematical and Statistical Modeling
Topics to be covered include: regression models, forecasting and time series models, probability and various statistical models. Computer solutions of these models will be included. Prerequisites: MAC 3413, COP 3402, MAS 3103; and STA 3322 or STA 3164.

MAP 6127 Simulation and Modeling
Two areas are covered in this course: advanced queueing models and simulation techniques. The relationships between these two areas, applications, and simulation languages will be among the topics covered. Prerequisite: COP 3530; and MAP 5117 or STA 6807.

MAS 3103 Linear Algebra
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 Algebraic Structures
An introduction to abstract mathematical structures of modern algebra. Fundamental concepts of groups, rings, and fields will be studied. Note: the student must complete MAA 3201 before attempting this course. Prerequisites: MAS 3103 and MAA 3201.

MAS 4302 Topics in Algebraic Structures
A sequel to Algebraic Structures. Topics may include: a continuation of the study of groups, rings and/or fields; polynomial domains; Euclidean domains; and Galois theory. Prerequisite: MAS 430I.

MAS 5215 Number Theory
Topics to be discussed are selected from the following: congruences, Diophantine equations, distribution of primes, primitive roots, quadratic reciprocity and classical theorems of number theory.

MAT 3905 Independent Study
(VAR)
Individual conferences, assigned readings, and reports on independent investigations.

MAT 3930 Special Topics
(VAR)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

MAT 3949 Cooperative Education in Mathematical Sciences
(VAR)
One semester of full-time supervised work in an outside organization 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.

MAT 4905 Independent Study
(VAR)
Individual conferences, assigned readings, and reports on independent investigations.

MAT 4930 Special Topics
(VAR)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

MAT 4943 Mathematical Sciences Internship
(VAR) 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.

## Mathematical Sciences

## MAT 4949 Cooperative Education in

Mathematical Sciences
(VAR)
One semester of full-time supervised work in an outside organization 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.

## MAT 5907 Independent Study

(VAR)
Individual conferences, assigned reading, and reports on independent investigations.

MGF 3113 The Significance of Mathematics (3) 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, and History of Mathematics.

MHF 4302 Mathematical Logic
A study of formal logical systems and their applications to the foundations of mathematics. Topics to be selected from the following: definition of mathematical proofs; set theory; analysis formalized with the predicate calculus; theorems of Godel and Church; recursive function theory; and idealized computers. Prerequisites: MAA 3201 or MAD 3504.

## MTG 3212 Geometry

A study of the basic structure of Euclidean geometry together with topics from advanced Euclidean geometry and non-Euclidean geometry. Prerequisite: High School geometry.

MTG 4302 Topology
An introductory course in toplogy requiring a prerequisite knowledge of the calculus. Topics to be discussed will be selected from the following: topological spaces, metric spaces, continuity, completeness, compactness, separation axioms, products spaces, subspaces, convergence, and homotopy theory. Prerequisite: MAC 3413, MAS 3103 and MAA 3201.

STA 3013 Statistics for Social Services
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 3033 Introduction to Probability

 and Statistics for CSBasic probability laws, probability distributions, basic sampling theory, point and interval estimation, tests of hypothesis, regression and correlation. Mini-tab will be used in the course. Prerequisite: MAC 3412.

## STA 3122-STA 3123 Introduction to Statistics I \& II

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 nonparametric tests.
STA 3132 Business Statistics
Starting with an introduction to probability, the course provides an introduction to statistical techniques used in management science. It includes descriptive statistics, probability distributions, estimation and testing of hypothesis.
STA 3161 Introduction to Statistical Analysis (3) A course in descriptive and inferential statistics. Topics include: probability distributions, point and interval estimation, hypothesis testing, regression and correlation, goodness of fit tests, contingency tables and analysis of variance. Prerequisite: A course in College algebra.

## STA 3163-STA 3164 Statistical

 Methods 1 \& II(3-3)
This course presents tools for the analysis of data. Specific topics include: use of normal distribution, tests of means, variances and proportions; the analysis of variance and covariance (including contrasts and components of variance models), regression, correlation, sequential analysis and non-parametric analysis. Prerequisites: College algebra or first course in statistics.
STA 3182 Statistical Models
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, testing distributional assumptions. Prerequisites: MAC 3413, and first course in statistics.

## STA 3321-STA 3322 Introduction to

Mathematical Statistics 1 \& II (3-3) 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 nonparametric), regression, analysis of variance, and design of experiments. Prerequisite: MAC 3413.

STA 3905 Independent Study (VAR)
Individual conferences, assigned readings, and reports on independent investigations.
STA 3930 Special Topics
(VAR)
A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.
STA 4161-HCA 4711 Statistical Applications in Health Care
A course in descriptive and inferential statistics for the Health Services. Topics include probability distributions, point and interval estimation, hypothesis testing, regression and correlation and contingency table analysis. Prerequisite: STA 3013 or equivalent college mathematics course.
STA 4502 Practical Nonparametric Statistics
This course deals primarily with tests of hypotheses for situations where standard parametric procedures (t-test, F-test, etc.) cannot be applied. Topics include binomial, multinomial and Poisson tests, permutation test, sign test, Mann-Whitney U test, Wilcoxon signed rank test, rank correlation, contingency chisquare, Kruskal-Wallis one-way ANOVA by ranks, Friedman test and other non-parametric tests. Prerequisite: First course in statistics.
STA 4603-STA 4604 Mathematical Techniques
of Operations Research 1 \& II (3-3) 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
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)
Individual conferences, assigned readings, and reports on independent investigations.
STA 5126/PSY 5206 Design of Experiments
in Psychological Research
(3)

The following topics will be included as they relate to psychological research: A review of analysis of variance in randomized and blocked designs, pairwise and multiple comparison

## Florida International University

## Modern Languages

tests, and analysis of variance in factorial, nested, and split-plot experiments and analysis of covariance. Computer software packages will be used for some analyses. Prerequisites: STA 3122 and STA 3123 or equivalent.

STA 5127/HCA 5711 Statistical Methods for Health Services
This course presents tools for the analysis of data that arise in the health prolessions. Specific topics include: probability concepts, poisson distribution, nonparametric techniques, sample size determination, analysis of variance and advanced regression techniques. Students will be taught the use of a computerized statistical analysis package. Prerequisite: HCA 4711 or introductory upper division college statistics course.
STA 5206 Design of Experiments
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: mutliple comparison tests, completely randomized design, randomized blocks, Latin Square and related designs, nested and factorial experiments. Prerequisite: STA 3322, or STA 3164.

STA 5207 Topics in Design of Experiments (3) This applied course in design of experiments covers topics such as split-plot design, confounding, fractional replication, incomplete block designs, and response surface designs. Prerequisite: STA 5206.
STA 5236-STA 5237 Regression Analysis I \& II
A comprehensive review of the role of linear models in statistics. Extensive use is made of matrix notation, and a prior course in linear algebra is imperative. The fundamental theorems underlying regression analysis and the analysis of variance will be covered. Such topics as the Gauss-Markov Theorem, generalized least squares, and estimation and testing of hypotheses will be covered. Prerequisites: STA 3322 and MAS 3103.
STA 5446-STA 5447 Probability Theory I \& II
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
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
(3)

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 5707/PSY 5246 Multivariate Analysis in Applied Psychological Research (3) Review of linear algebra. Topics include multiple regression, one \& two sample multivariate analysis, profile analysis, multivariate analysis of variance, principal component \& factor analysis. Computer software packages will be used for some analyses. Prerequisites: STA 3122 and STA 3123 or equivalent. Linear algebra and STA 5126 recommended.

STA 5826 Stochastic Processes
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) Individual conferences, assigned reading, and reports on independent investigation.
STA 6807 Queuing and Statistical Models (3) Review of probability concepts, basic probability distributions, Poisson process, queuing models, statistical models, propagation of errors, tests of models. Prerequisites: Permission of Instructor, MAC 3412 and STA 3163.

## Modern Language Majors

John B. Jensen, Associate Professor, Chairperson<br>James O. Crosby, Professor<br>Yvonne Guers-Villate, Professor<br>Ramon Mendoza, Professor (Bay Vista Campus)

Frances M. Aid, Associate Professor
R. Reinaldo Sanchez, Associate Professor

Jose L. Varela-Ibarra, Assistant Professor
Maida Watson Espener, Assistant Professor
Marcelle Welch, Assistant Professor,
Associate Dean
Andrée Stayman, Instructor
LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Required Courses: Fifteen semester hours of elementary and intermediate foreign language or equivalent proficiency. If these courses are not completed prior to entry to FIU, they will be required as part of the upper division program as non-major electives.
UPPER DIVISION PROGRAM:
Semester Hours
Required Courses: * 30
Foreign language
Electives:*
60
*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 refer to the School of Education).
REQUIREMENTS FOR ALL MODERN LANGUAGE MAJORS: All majors must have a designated faculty advisor, and all are required to take 30 semester hours in the department of Modern Languages, with a grade of " C " or better. REQUIREMENTS FOR SPANISH MAJORS: To undertake a major in Spanish a student must demonstrate minimum proficiency in the language. This may be done by a written examination administered by the Department, or by completing SPN 3301 (Non-native speakers of Spanish) or SPN 3305 (Native speakers). SPN 3421 must be part of the 30 credit hours of upper division work taken (unless the student is exempted by examination), and credit hours must be distributed according to one of the following plans:

|  | ABC |  |
| :---: | :---: | :---: |
| SPN 3421* | 333 | Sem. hours |
| Literature courses | 996 | Sem. hours |
| Linguistics courses | 969 | Sem. hours |
| Culture courses | $-33$ | Sem. hours |
| Departmental electives | 999 | Sem. hours | *Unless exempted by examination, in which case the student has 3 additional hours of electives.

Introduction to General Linguistics (LIN 3010 or equivalent) must be taken before other linguistics offerings; otherwise, there is no prescribed sequence of courses for the major.

## Modern Languages

## 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 21 credits in the major target language, but completion of at least two semesters 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

LOCATION: Tamiami and Bay Vista Campuses
The Department of Modern Languages offers five-semester sequences of instruction in beginning and intermediate French, German, Italian, Portuguese, and Spanish, as well as intermediate courses in English for Speakers of Other Languages and beginning instruction in Arabic, Chinese, Hebrew, Japanese, Russian, and other languages. Accelerated versions of the basic language courses are offered in some languages to enable students to finish the sequence more rapidly.

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.

## 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).

## ENGLISH AS A SECOND LANGUAGE

ESL 3181 Elementary Combined Skills (VAR)
Review and practice of basic English grammatical patterns; emphasis on oral and written communication.

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 (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
The common and distinctive romance features. Survey of linguistic geography and internal / external influences.
FOL 3905 Independent Study
Project, field experience, readings, or apprenticeship.

## FOL 3930 Special Topics

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

FOL 3949 Cooperative Education in Modern Languages
(3)

A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

## FOL 3955 Foreign Study

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

## FOL 4013 Language Skills for Professional Personnel <br> (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
Independent readings, research, or project.

## FOL 4935 Senior Seminar

Topics and approach to be determined by students and instructor.

FOL 4949 Cooperative Education in Modern Languages
A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

## FOL 4958 Foreign Study: Advanced

Language/Literature
(9)

Full semester credit for foreign residence and study work. (Approval of Department required).
FOL 5735 Romance Linguistics
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
Masterpieces of world literature in English. Comparative use of the original text. Discussion and interpretation.
FOT 3800 Translation/Interpretation Skills
(3)

Emphasis on basic principles and practice application.
FOT 3810 Creative Writing/Translation
Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.

## FOT 4130 European Literature in

 TranslationFor students proficient in more than one foreign language. Content and focus to be determined by student and teacher.

## FOT 4801 Professional Translation/ Interpretation

Techniques and resources for professional translation and interpretation. Prerequisite: FOT 3800.

## FOT 5131 Literature in Translation

Masterpieces of world literature. Open to students who are proficient in more than one language.

FOT 5802 Translation/Interpretation Arts (3) Techniques of professional translation and interpretation. Prerequisite: FOT 4801.

## FOW 3520 Prose and Society

## (3)

The dynamics of participation and alienation between prose writers and their environment.

## FOW 3540 Bicultural Writings

Experiment in linguistic pluralism. Content and focus to be determined by the international community.

# Modern Languages 

## FOW 3580 Intellectual History

(3)

The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.

## FOW 3582 Literature of Reform

The consciousness of change in verbal art.

## FOW 3584 Literature of Repression

The consciousness of constraints, their adoption and/or rejection in verbal art.

## FOW 4390 Genre Studies

Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

## FOW 4590 Creative Modes

Discussion of a single mode or a plurality of epoch styles such as classical / baroque, realism / surrealism. The peculiar / common features of expressive media.

## FOW 4790 The Literary Generation

The real and apparent shared ideals of an artistic generation, its influence and range.

## FOW 4810 Problems in Reading and Interpretation

The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

## FOW 5395 Genre Studies

Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

## FOW 5545 Bicultural Writings

Experiment in linguistic pluralism. Content and focus to be determined by the international community.
FOW 5587 Comparative Studies
Cross-over and distinctiveness in a multilanguage problem, period, or esthetic.

## FOW 5934 Special Topics in Language/ Literature

(3)

Content and objectives to be determined by students and teacher.
FOW 5938 Graduate Seminar
Topic and approach to be determined by students and instructor. (Approval of the Department required.)

## FRENCH

FRE 3000 Elementary French
(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 French 1

(3)

Provides training in the acquisition and application of basic language skills.

## FRE 3121 French 2

(3)

Provides training in the acquisition and application of basic language skills.

## FRE 3122 French 3

Provides training in the acquisition and application of basic language skills.
FRE 3200 French 4
Provides training in the acquisition and application of basic language skills.

## FRE 3201 French 5

Provides training in the acquisition and application of basic language skills.
FRE 3270 Foreign Study
Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

## FRE 3415 Communication Arts

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
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
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 1
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

Examination and synthesis of the concepts and perspectives of major contributions to language theory.

## FRE 3705 Applied Linguistics

Examination of available linguistic materials for self-instruction. Problem solving in syntax and phonetics, through the application of modern / traditional methods.

## FRE 3780 Phonetics

The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity.

FRE 3820 Dialectology
Definition and analysis. Problem-solving in dialect classification.

FRE 3840 History of the Language
(3)

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
Full semester credit for foreign residence and study/work. (Approval of Department required.)
FRE 4501 Civilization II
Open to any student who understands the target language. The making of a modern culture. The ideological, political and economic background of contemporary culture.
FRE 4562 Studies in Bilingualism
Readings and analysis of bilingual programs and binational goals.

FRE 4791 Contrastive Phonology
Contrasts in the sound systems of English and French.
FRE 4800 Contrastive Morphology
Contrasts in the morphology and syntax of English and French.
FRE 4935 Senior Seminar
Topic and approach to be determined by students and instructor.
FRE 5060 Language for Reading Knowledge
Designed primarily for graduate students who wish to attain proficiency for M.A. and Ph.D. requirements. Open to any student who has no prior knowledge of the language.
FRE 5061 Language for Reading Knowledge
Emphasis on translation of materials from the student's field of specialization. Prerequisite: FRE 5060, or the equivalent.
FRE 5416 Communication Arts
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 Bilingualism

Readings and analysis of bi-lingual programs and binational goals.

FRE 5730 Special Topics in Linguistics
Content to be determined by students and instructor. (Approval of Department required.)
FRE 5908 Independent Study
(VAR)
Project, field experience, readings, or research.

## Modern Languages

## FRT 3110 Literature in Translation

Masterpieces of French literature in English. Comparative use of the original text. Discussion and interpretation.
FRT 3800 Translation/Interpretation Skills (3) Emphasis on basic principles and practice application.

FRT 3810 Creative Writing/Translation
Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation and interpretation.

## FRT 4801 Professional Translation/ Interpretation

Techniques and resources for professional translation / interpretation. Prerequisite: FRT 3810.
FRT 5118 Literature in Translation
Masterpieces of world literature. Open to students who are proficient in more than one language.
FRT 5802 Translation/Interpretation Arts
Techniques of professional translation and interpretation. Prerequisite: FRT 4801.
FRW 3520 Prose and Society
The dynamics of participation and alienation between prose writers and their environment.
FRW 3580 Intellectual History
The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.

FRW 3582 Literature of Reform
The consciousness of change in verbal art.
FRW 3584 Literature of Repression
The consciousness of constraints, their adoption and / or rejection in verbal art.

FRW 3820 Stylistics/Explication de Texte
Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.

## FRW 3905 Independent Study

Project, field experience, readings, or apprenticeship.

## FRW 3930 Special Topics

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

## FRW 4152 European Literature in Translation

For students proficient in more than one foreign language. Content and focus to be determined by students and instructor. (Conducted in French.)

FRW 4390 Genre Studies
(3)

Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

## FRW 4590 Creative Modes

Discussion of a single mode or a plurality of epoch styles such as classical / baroque, realism / surrealism. The peculiar / common features of expressive media.
FRW 4790 The Literary Generation
The real and apparent shared ideals of an artistic generation, its influence and range.
FRW 4810 Problems in Reading and Interpretation
The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

FRW 4905 Independent Study
(VAR)
Project, field experience, readings, or research.
FRW 4930 Special Topics
Independent readings, research, or project.
FRW 5150 Comparative Studies
Cross-over and distinctiveness in a multilanguage problem, period, or aesthetic.

## FRW 5395 Genre Studies

(3)

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

Content and objectives to be determined by student and instructor.

## FRW 5938 Graduate Seminar

Topic and approach to be determined by students and instructor. (Approval of the Department required.)

## GERMAN

GER 3000 Elementary German
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 German 1
Provides training in the acquisition and application of basic language skills.

## GER 3121 German 2

Provides training in the acquisition and application of basic language skills.

## GER 3122 German 3

Provides training in the acquisition and application of basic language skills.

## GER 3200 German 4

(3)

Provides training in the acquisition and application of basic language skills.
GER 3201 German 5
(3)

Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.

GER 3420 Review Grammar/Writing I (3)
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
(3)

Independent readings, research, or project.
GER 5060 German for Reading Knowledge
(3)

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
(3)

Emphasis on translation of materials from the student's field of specialization. Prerequisite: GER 5060, or the equivalent.
GET 3100 Literature in Translation
Masterpieces in German literature in English.
Comparative use of the original text. Discussion and interpretation.

## HEBREW

HEB 3000 Elementary Hebrew
(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 Hebrew 1
Provides training in the acquisition and application of basic language skills.

## HEB 3111 Hebrew 2

(3)

Provides training in the acquisition and application of basic language skills.
HEB 3112 Hebrew 3
(3)

Provides training in the acquisition and application of basic language skills.
HEB 3200 Hebrew 4
Provides training in the acquisition and application of basic language skills.
HEB 3201 Hebrew 5
(3)

Provides training in the acquisition and application of basic language skills.

## ITALIAN

1TA 3000 Elementary Italian
(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 Italian 1

(3)

Provides training in the acquisition and application of basic language skills.
(Continued)

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## 1TA 3121 Italian 2

(3)

Provides training in the acquisition and application of basic language skills.
JTA 3122 Italian 3
Provides training in the acquisition and application of basic language skills.
ITA 3200 Italian 4
Provides training in the acquisition and application of basic language skills.

ITA 3201 Italian 5
Provides training in the acquisition and application of basic language skills.

ITA 3420 Review Grammar/Writing I
Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.
ITA 4905 Independent Study
(VAR)
Project, field experience, readings, or research.

## ITA 4930 Special Topics

Independent readings, research, or project.
ITT 3110 Literature in Translation
Masterpieces of Italian literature in English. Comparative use of the original text. Discussion and interpretation.

## LINGUISTICS

LIN 3010 Introduction to General Lingwistics (3) Examination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in English.)

## LIN 3200 Phonetics

The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisite: LIN 3010 or equivalent.

## LIN 3400 Applied Linguistics

Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern / traditional methods. (Conducted in English.) Prerequisite: LIN 3010 or equivalent.

## LIN 3610 Dialectology

Definition and analysis. Problem-solving in dialect classification. Prerequisite: LIN 3010 or equivalent.

## LIN 4226 Contrastive Phonology

For students proficient in more than one foreign language. Choice of languages to be determined by students and instructor. Prerequisite: LIN 3010 or equivalent.
LIN 4333 Contrastive Morphology
For students proficient in more than one foreign language. Content and emphasis to be determined by students and instructor. Prerequisite: LIN 3010 or equivalent.

LIN 4418 Problems in Language Learning (3)
Primarily designed for prospective teachers, but open to all interested students. The course will aim to devise approaches to difficulties commonly cxperienced in syntax, usage, reading and comprehension. Prerequisite: LIN 3010 or equivalent.
LIN 4620 Studies in Bilingualism
Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010 or equivalent.
LIN 5625 Studies in Bilingualism
(3)

Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010 or equivalent.
LIN 5934 Special Topics in Linguistics
Content to be determined by students and instructor. (Approval of the Department required.)

## PORTUGUESE

POR 3000 Elementary Portuguese
(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 Portuguese 1

Provides training in the acquisition and application of basic language skills.

## POR 3121 Portuguese 2

Provides training in the acquisition and application of basic language skills.

POR 3122 Portuguese 3
Provides training in the acquisition and application of basic language skills.
POR 3130 Accelerated Portuguese 1
Provides accelerated training in the acquisition and application of basic language skills. Equivalent to Portuguese 1 (POR 3120) and half of Portuguese 2 (POR 3121).
POR 3131 Accelerated Portuguese II
Provides accelerated training in the acquisition and application of basic language skills. Equivalent to half of Portuguese 2 (POR 3121) and all of Portuguese 3 (POR 3122).

POR 3200 Portuguese 4
Provides training in the acquisition and application of basic language skills.
POR 3201 Portuguese 5
Provides training in the acquisition and application of basic language skills. Prerequisite: One year of basic instruction.

## POR 3420 Review Grammar/Writing I

Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

POW 4905 Independent Study
(VAR)
Project, field experience, readings, or research.
POW 4930 Special Topics
Independent readings, research, or project.
PRT 3401 Literature in Translation
Masterpieces of Portuguese literature in English. Comparative use of the original text. Discussion and interpretation.

## SPANISH

SPN 3000 Elementary Spanish
(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 Spanish 1
Provides training in the acquisition and application of basic language skills.

## SPN 3121 Spanish 2

Provides training in the acquisition and application of basic language skills.
SPN 3130 Accelerated Spanish 1
Provides accelerated training in the acquisition and application of basic language skills. Equivalent to Spanish 1 (SPN 3120) and half of Spanish 2 (3121).

## SPN 3131 Accelerated Spanish II

Provides accelerated training in the acquisition and application of basic language skills. Equivalent to half of Spanish 2 (SPN 3121) and all of Spanish 3 (SPN 3122).

## SPN 3122 Spanish 3

Provides training in the acquisition and application of basic language skills.

## SPN 3200 Spanish 4

Provides training in the acquisition and application of basic language skills.

## SPN 3201 Spanish 5

Provides training in the acquisition and application of basic language skills.
SPN 3305 Spanish for Native Speakers
Improvement of spelling, grammar, vocabulary, and composition skills. For native speakers of Spanish with limited training in writing.

## SPN 3310 Review Grammar/Writing I

Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

## SPN 3270 Foreign Study

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

## Modern Languages

## SPN 3415 Communication Arts

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 3421 Review Grammar/Writing II
Examination of grammatical theory; discussion of the modem 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 Culture

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
Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern / traditional methods. (Conducted in Spanish.) Prerequisite: LIN 3010 or equivalent.

## SPN 3733 Introduction to General

 LinguisticsExamination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in Spanish.) Equivalent to LIN 3010.

SPN 3780 Phonetics
The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisite: LIN 3010 or equivalent.

## SPN 3820 Dialectology

Definition and analysis. Problem-solving in dialect classification. Prerequisite: LIN 3010 or equivalent.

SPN 3840 History of the Language
The internal and external history of language development. Examination of model texts from key periods of evolution. Prerequisite: LIN 3010 or equivalent.

SPN 3905 Independent Study
Project, field experience, readings, or apprenticeship.

SPN 4013 Language Skills for Professional Personne]
(VAR)
The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

## SPN 4470 Foreign Study: Advanced Language/Literature

(9)

Full-quarter credit for foreign residence and study / work. (Approval of the Department required.)
SPN 4501 Culture
(3)

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
Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010 or equivalent.

## SPN 4790 Contrastive Phonology

Contrasts in the sound systems of English and Spanish. Prerequisite: LIN 3010 or equivalent.

## SPN 4800 Contrastive Morphology

Contrasts in the morphology and syntax of English and Spanish. Prerequisite: LIN 3010 or equivalent.

## SPN 4822 Hispanic-American Sociolinguistics

Language and society in Latin America. Sociolinguistic theory followed by consideration of specific language problems in Spanish- and Portuguese-speaking areas of the Americas. Prerequisite: LIN 3010 or equivalent.

SPN 4905 Independent Study
(VAR)
Project, field experience, readings, or research.
SPN 4936 Senior Seminar
Topic and approach to be determined by students and instructor.

## SPN 5060 Language for Reading

Knowledge
(3)

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

 KnowledgeEmphasis on translation of materials from the student's field of specialization. Prerequisite: SPN 5060, or the equivalent.

SPN 5416 Communication Arts
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
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

Content to be determined by students and instructor. (Approval of the Department required.)

SPT 3110 Literature in Translation
Masterpieces of Hispanic literature in English. Comparative use of the original text. Discussion and interpretation.

SPT 3800 Translation/Interpretation Skills (3) Emphasis on basic principles and practice application.

SPT 3810 Creative Writing/Translation
Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.
SPT 4801 Professional Translation/ Interpretation
Techniques and resources for professional translation / interpretation. Prerequisite: SPT 3800.

SPT 5118 Literature in Translation
Masterpieces of world literature. Open to students who are proficient in more than on language.
SPT 5802 Translation/Interpretation Arts
Techniques of professional translation / interpretation. Prerequisite: SPT 4801.

SPW 3520 Prose and Saciety
The dynamics of participation and alienation between prose writers and their environment.
SPW 3580 Intellectual History
The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.
SPW 3582 Literature of Reform
The consciousness of change in verbal art.
SPW 3584 Literature of Repression
The consciousness of constraints, their adoption and / or rejection in verbal art.
SPW 3820 Introduction to Literature
Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.

SPW 3930 Special Topics
Readings and discussion of literary / linguistic topics to be determined by students and instructor.

SPW 4152 European Literature in Translation
For students proficient in more than one foreign language. Content and focus to be determined by students and instructor. (Conducted in Spanish.)
SPW 4390 Genre Studies
Examination of a single literary form (e.g. Short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

SPW 4590 Creative Modes
Discussion of a single mode or a plurality of epoch styles such as classical / baroque, realism / surrealism. The peculiar / common features of expressive media.

SPW 4790 The Literary Generation
The real and apparent shared ideals of an artistic generation, its influence and range.
(Continued)

## Performing Arts

## SPW 4810 Problems in Reading and Interpretation

The identification and appreciation of techniques for sensitive reading and discussion of literary texts.
SPW 4930 Special Topics
Independent readings, research, or project.
SPW 5155 Comparative Studies
Cross-over and distinctiveness in a multilanguage problem, period, or aesthetic.
SPW 5391 Genre Studies
(3)

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
Content and objectives to be determined by students and instructor.
SPW 5936 Graduate Seminar
Topic and approach to be determined by students and instructor. (Approval of the Department required.)

## Music Major

Philip H. Fink, Professor and Chairperson (Music)
Clair T. McElfresh, Professor (Music)
Paul Mazer, Associate Professor (Theatre) Yoshihiro Obata, Associate Professor (Music)
Joseph Rohm, Associate Professor (Music)
Therald Todd, Associate Professor
(Theatre-Program Director)
Violet Vagramiam, Associate Professor (Music)
Marie Leeds, Assistant Professor (Music)
Clardy Malugen, Assistant Professor (Theatre)
Maria Marrero, Assistant Professor (Theatre)
Music students at FIU come from a wide variety of academic backgrounds from both Florida and other states. Because of this diversity, the Faculty of Music gives three basic preliminary examinations in order to assist the student to eliminate any deficiencies:

1) Music History - consisting of all periods of history
2) Music Theory - consisting of melodic and harmonic dictation and written harmonization
3) Performance Skills - consisting of performing one or more solo works for the faculty during the first week of classes.
The preliminary examinations give the faculty an idea of a student's level of proficiency at entrance into the University, as well as give a frame of reference for the progress that should be made during the first semester. Students whose level of achievement is not sufficiently advanced for accepted junior level placement will be advised how those deficiencies may be overcome.

LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Music
LOWER DIVISION PREPARATION:
Required Courses: None.
Recommended Courses: applied, 4 semester hours; organizations, 4 semester hours; theory, 12 semester hours; sight-singing, 4 semester hrs., history, 4 semester 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 60 semester hours of upper division work to complete the degree.

## UPPER DIVISION PROGRAM:

A grade of C or better in all courses required for the major is necessary for graduation.

## APPLIED MUSIC

Semester Hours
Required Courses:
Theory: MUT 43II, MUT 34I6, MUT
36II, MUE 3 I40
History: MUH 321I, MUH 3212, MUH

## 3372

Organizations (4 semesters)
Conducting
Applied (4 semesters)
Recital and Research and Directed Study
Electives:
60

## CONDUCTING

Required Courses:
Theory
History
Organizations (4 semesters)
Conducting
Applied (4 semesters)
*The student is required to conduct a performing organization (approximately two numbers - not a complete program) during his or her senior year.
Electives: 15

## THEORY AND COMPOSITION

Semester Hours
Required Courses:
Theory
Composition
History
Organizations (4 semesters)
Conducting
Applied (5 hours composition lessons)
Recital and Research and Directed Study*
*The student must perform an original composition with analysis, or lecture on a theoretical subject for the student body.
Electives:


MUSICOLOGY
Required Courses:
Theory
History
Organizations (4 semesters)
Conducting
Applied (4 semesters)
Research*
*The student must lecture for the student body, as part of the research requirement.
Electives:

Directed Study based on specialized areas of music history under advisor's supervisionminimum
Foreign Language (reading proficiency) 2 semesters
Other electives to be determined in consultation with an advisor
COMMERCIAL MUSIC/JAZZ
Semester Hours
Required Courses:
Theory (Solfege, Orchestration, Counterpoint, Form and Analysis)
History
Organization (3 semesters)
Applied ( 3 semesters; $1 / 2 \mathrm{hr}$. lessons)
Business of Music (MUM 4301)
Intemship / Jazz Core
Electives:

## APPLIED MUSIC WITH CERTIFICATION

Required Music Courses
Theory
History
Organizations
Conducting
Applied
Recital and Research
Guitar (MVS 3116)
Required Education Courses:

## Performing Arts

## 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 MusicKeyboard; MVP - Applied Music-Percussions; MVS - Applied Music-Strings; MVV - Applied Music-Voice; MVW - Applied MusicWoodwinds.

## MUC 4201 Music Composition I

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

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

A course designed to strengthen and build the student's ability to write and perform melodie, 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.
MUE 5928 Workshop in Music
Applications of materials and techniques in music in a laboratory or field setting.

## MUG 4101 Basic Conducting

A basic conducting course to gain fundamental technique and interpretation. A prerequisite for both advanced instruments and choral conducting.
MUG 4201 Choral Conducting
With a background in basic theory, and having performed in organizations, the student will develop techniques of group conducting including madrigal, glee, choir, etc. A survey of choral literature will be included. Prerequisite: Basic Conducting.
MUG 4301 Instrumental Conducting
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 (3) An extension of form and analysis, with interpretation both in instrumental and choral conducting. Twentieth century scoring and symbol in-
terpretation will be studied in depth, with actual conducting experience required.
MUH 3116 Evolution of Jazz
A history course that surveys jazz styles from mid-19th century to 1977. A sociological and musical look at jazz, the personalities and their experience.
MUH 3211 Music History Survey
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
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
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"
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
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
A non-technical introduction to music before the 1800's and music of the 20th century. Comparisions of music up to and including electronic music.
MUL 4400 Keyboard Literature
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

Survey of symphonic literature from the 17th century to present day. Analysis and illustrations of representative works.

MUL 4661 History and Literature of Opera (3) Chronological survey of opera literature from the 17th century to present day. Analysis and performance of representative works.
MUM 4301 Business of Music
Principles and practices of modern publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights;
agreements and relations between producers directors, performers, writers, personnel managers, and booking agents. Prerequisite: Permission of instructor.
MUM 4940 Music Internship
(VAR)
Practical experience utilizing music theory; composition and history in the commercial music industry. The precise nature of the work will be determined in consultation with an advisor. Prerequisites: MLM 4301.

## MUN 3140 MUN 4140, MUN 5145

Wind Ensemble
(1)

A group of wind and percussion instrumentalists. Prerequisite: Permission of conductor.
MUN 3210, MUN 4210, MUN5215 Orchestra (1) An instrumental ensemble performing works from the symphonic repertory. Prerequisite: Previous experience, and permission of conductor.
MUN 3340, MUN 4340, MUN 5345
Collegiate Chorale
A small ensemble of selected mixed voices performing a repertoire in the modern popular idiom. Miniature contemporary accompaniment will be utilized.
MUN 3380 , MUN 4380, MUN 5385
University Singers
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
Small ensemble in the performing of chamber music literature. Prerequisite: Permission of conductor.
MUN 3710, MUN 4710, MUN 5715 Studio Jazz
An ensemble to provide creative professionallevel experience in the contemporary popular idiom.
MUS 3905, MUS 5905 Directed Study (VAR) 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
(VAR)
Research composition or performance projects, under the guidance and direction of the music facuity. (May be repeated.)
MUS 3949 Cooperative Education in Performing Arts
(VAR) A student majoring in Performing Arts may spend several quarters fully employed in industry or govemment in a capacity relating to the major.

# Performing Arts 

## MUS 4949 Cooperative Education in

Performing Arts
(VAR)
A student majoring in Performing Arts may spend several quarters fully employed in industry or government in a capacity relating to the major.
MUT 3031 Music Theory I
Designed to review and develop skills in basic theory, harmony, and ear training.

## MUT 3032 Music Theory II

Designed to review and further develop skills in basic theory, harmony, and ear training. Prerequisite: Music Theory I, or equivalent.

## MUT 3416 Counterpoint

A study of linear writing through species counterpoint. Two and three-part instrumental and vocal counterpoint of the 18 th century: Canon, inventions, fugues. Particular emphasis will be placed on formal analysis. Prerequisite: Music Theory II, or equivalent.

## MUT 3611 Form and Analysis

Study and analysis from the smaller forms of musical composition to multimovement forms. Prerequisite: Counterpoint.
MUT 4311 Orchestration
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

This course will analyze and compose works using the following procedures: melodicharmonic 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 4641 Jazz Improvisation 1
A beginning course in Jazz improvisation that teaches fundamental aspects, chord structures and extensions, chord scales, melodic patterns, and tunes. Course will involve both theory and practical application. A concert will be held at conclusion of term.

## MUT 4642 Jazz Improvisation II

A follow-up course that both reinforces and extends all material learned in Jazz Improvisation I. Course stresses more complex chord structure, scales and tunes. A concert will be held at conclusion of the term.

## MUT 4643 Jazz Improvisation III

A continuation of Jazz Improvisation II, this course teaches chromatic chords, advanced scales and progressions, patterns, repertoire. Individual and ensemble performance is required as a final project. Prerequisites: Jazz Improvisation II.

## MUT 4353 Jazz Arranging

This course teaches the fundamental aspects of
jazz arranging: instrumentation, transposition, section and ensemble writing, chord voicings, counterpoint, and form and analysis. The performance of an original arrangement is required as a final project. Prerequisites: Jazz Improvisation I.
MUT 5325 Arranging
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)
Individual instruction in applied music on trumpet, French horn, trombone, baritone hom, or tuba.

## MVK 3331, MVK 4341, MVK 5351 <br> Applied Music-Keyboard (1-2)

Individual instruction in applied music on piano or organ.

## MVP 3331, MVP 4341, MVP 5350

Applied Music-Percussion (1-2)
Individual instruction in applied music on all percussion instruments.
MVS 3116 Guitar Skills
Emphasis on music reading and elementary techniques. Open to all Florida International University students.

## MVS 3216 Intermediate Guitar Skills

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)
Individual instruction in applied music in violin, viola, cello, string bass, guitar, or harp.

## MVS 4975 Recital and Research

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 3111 Class Instruction-Voice
Class instruction on voice designed to and the student in developing performance skills and increased musical knowledge. (May be repeated.)

MVV 4141 Intermediate Class Voice
Emphasis on sightsinging, tonal production, interpretation and other vocal exercises. Particular attention is paid to vocal and acting improvisation. Prerequisites: MVV 3111.

MVV 3331, MVV 4341, MVV 5351
Applied Music - Voice
(1-2)
Individual instruction in applied music in voice.
MVW 3333, MVW 4345, MVW 5353
Applied Music - Woodwinds (1-2) Individual instruction in applied music on the flute, oboe, clarinet, bassoon, or saxophone.

## Theatre Major

LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Fine Arts in Theatre LOWER DIVISION PREPARATION:
Recommended Courses: Three semester hours in acting; stagecraft; stage lighting; costuming; voice for the theatre; three to six hours in dance; and theatre workshop.

## UPPER DIVISION PROGRAM:

The goal of the Theatre Program is to provide well rounded theatre training through classes and productions conducted with professional theatre discipline and the highest possible aesthetic standards. In addition to satisfactory completion of all course work, a Theatre Major is required to participate in all of the major productions presented during enrollment in the Theatre Program.
Required courses for a BFA degree in Theatre: 34
TPP 3110 Acting I 3

TPP $3280 \quad$ Theatre Speech and
TPA 3200 Stagecraft I 3
TPA 3220 Stage Lighting I 3
TPA $3010 \quad$ Scenic Design I
TPA 4230 Stage Costuming 3
TPA 3290L
TPA 3292L Technical Theatre Lab 3
TPA 3650 Playscript Analysis 3
TPP 3310 Directing 3
THE 4110 -
THE 4111 Theatre History I, II 6
THE 4970 Senior Project 2
Elective Courses $\quad 26$

## Minor in Theatre:

## Required Courses:

| THE 3000 | Theatre Appreciation | 3 |  |
| :---: | :--- | :---: | :---: |
| TPA 3200 | Stagecraft I | 3 |  |
| TPP 3110 | Acting I | 3 |  |
| TPP 3650 | Playscript Analysis | 3 |  |
| Theatre Electives |  | 9 |  |

## Theatre Electives

A grade of C or better in all courses required for the major is necessary for graduation.

## Course Descriptions

## Definition of Prefixes

DAA - Dance Activities; ORI - Oral Interpretationg SPC - Speech Communication; THE - Theatre; TPA - Theatre Production and Administration; TPP - TheatrePerformance and Performance Training.

## Performing Arts

## THEATRE MAJOR

DAA 3100 Modern Dance Technique $1 \quad$ (2)
Development of techniques and understanding of the art form of contemporary dance. May be repeated.

## DAA 3101 Modern Dance Technique II

A continuation of basic techniques and understanding of the art form of contemporary dance. Prerequisite: DAA 3100 or permission of instructor. May be repeated.
DAA 3200 Ballet Technique I
Development of techniques and understanding of ballet. May be repeated.

## DAA 3201 Ballet Technique II

A continuation of basic techniques and understanding of ballet. Prerequisite: DAA 3200 or permission of instructor. May be repeated.
ORI 3000 Basic Oral Interpretation (3)

Development of the voice as an instrument for expressive interpretation of literature.
SPC 3600 Public Speaking
Study of the principles of ethical and effective public speaking, with practice in the construction and delivery of original speeches before an audience. For non-theatre majors only.
THE 3000 Theatre Appreciation
A study of theatre, process and product, for the audience.
THE 3051 Children's Theatre
Techniques of selection, production and performance of plays for children.
THE 3071 Introduction to Filmmaking (3) 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 I
Conceptual study of total-filmmaking. Equipment, procedures, location, 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 3510 Dramatic Theory and Criticism I (3) A study of basic critical writings on the theatre, from Plato and Aristotle to the present. Plays will be studied and critiqued.
THE 3511 Dramatic Theory and Criticism II (3) A continuation of Dramatic Theory and Criticism I, including practical application of principles in writing. Prerequisite: Dramatic Theory and Criticism 1.
THE 4076 Film Production II
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 3075 , or permission of the instructor. May be repeated.
THE 4110 Theatre History I
The development of the theatre from its origins to the early 19th century.
THE 4111 Theatre History 11
The development of the theatre from early 19th century to the present.
THE 4820 Creative Dramatics
The study of informal drama activity with children. Techniques of improvisation, sense recall, music and movement are employed.
THE 4916 Research
Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. May be repeated.
THE 4950 Theatre Internship
(1-15)
Supervised internship in a professional company in acting, directing, stage management, design, technical theatre or theatre management.
THE 4970 Senior Project
Preparation of a final creative project in the student's area of emphasis under the direction of a faculty advisor. Prerequisite: prior arrangement with advisor.

## THE 5916 Research

(1-5)
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) 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 Scenic Design I

Fundamentals of designing effective settings for the play. Discussion and practice in: analysis, research, the creation of appropriate and exciting environments for the actor, and basic skills in rendering and model making. Prerequisite for Theatre majors - TPA 3200.

## TPA 3200 Stagecraft I

An introduction to construction techniques used in stage. Direct experience with wood and metal working tools, blueprint reading, and various materials including wood, metal, plastics and fabrics. Lecture and laboratory.
TPA 3220 Stage Lighting
Familiarization with stage lighting equipment, purposes and aesthetics of stage lighting; development of an approach to designing lighting;
practical experience in the use of equipment. Lecture and laboratory.

## TPA 3250 Stage Make-up

Fundamentals of straight and character make-up. Use of greasepaint, and three dimensional techniques.

## TPA 3290L Technical Theatre Lab I

Supervised crew work in construction, painting, lighting, costuming and running major productions. Required of Theatre majors.
TPA 3291L Technical Theatre Lab II
Supervised crew work. Required of Theatre majors.
TPA 3292L Technical Theatre Lab III
Supervised crew work. Required of Theatre majors.

## TPA 4061 Scenic Design II

Advanced skills in setting the mood of, and creating movement through a theatrical space. Emphasis will be placed upon rendering techniques and model making. Prerequisite: TAP 3010.

## TPA 420I Stagecraft Il

Advanced problems in the construction and movement of scenery, properties and special effects. Prerequisite: TPA 3200.

## TPA 4230 Stage Costuming I

Fundamentals of costume design. Study of period, character and concept. Familiarization with fabrics, and techniques of construction and trim.

## TPA 4231 Stage Costuming II

Advanced skills in designing, rendering and construction costumes. Includes pattem making and charting the show. Prerequisite: TPA 4230.

## TPA 4260 Sound for the Theatre

A study of the uses of sound effects and high fidelity electronics in theatrical production.

## TPA 4400 Theatre Management

Survey of all aspects of theatre administration: budget planning and maintenance; public relations; box office and house management; unions and contracts.

## TPP 3100 Introduction to Acting

An introduction to the acting process. Self awareness, physical and vocal control, basic stage technique and beginning scene work will be studied. Intended for the student with little or no acting experience.

# Philosophy and Religious Studies 

## TPP 3110 Acting 1

This course is designed to free the actor as an instrument of his or her craft through improvisation, theatre games, and exercises. Work on basic voice projection, movement, stage language, scene study, and basic elements of character are included.

TPP 3111 Acting II
Beginning scene study and character building, continuing work begun in Acting I. Prerequisite: TPP 3110, TPP 3282.

TPP 3282 Theatre Speech and Movement (2) Development of the actor's two main instruments: the voice and the body.

TPP 3283 Theatre Speech and Movement 11 (2) A continuation of the development of the actor's voice and body. Prerequisite: TPP 3282.

TPP 3310 Directing I
Basic principles of play direction; including problems of selecting, analysing, casting and rehearsing plays. Prerequisites: TPP 3650 .

TPP 3650 Playscript Analysis
Detailed playscript examination for directors, actors and designers, focusing on identification of those elements upon which successful theatre production depends.

TPP 3730 Dialects
A study of dialects common to western theatre. Prerequisite: TPP 3100 (Acting).

TPP 4112 Acting III
Advanced scene study, character and improvisation work. Elements of style, auditions techniques and ensemble playing will be explored. Prerequisite: TPP 3111.

TPP 4280 Special Problems in Acting
This course will concentrate on the Acting demands of a specific period, style, genre, or playwright. Prerequisite: TPP 4112 or permission of instructor.

TPP 4311 Directing II
A continued study of direction techniques culminating in the preparation of a play for public performances. Prerequisite: TPP 3310.

TPP 4531 Stage Combat
A study of combat techniques for the stage, including fencing, boxing, wrestling and tumbling.

TPP 4600 Playwriting
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

James Huchingson, Associate Professor and Chairperson
Ricardo Arias, Professor
George Kovacs, Professor
Richard Konkel, Associate Professor
Robert Hann, Assistant Professor
Bruce Hauptli, Assistant Professor
Kenneth Henley, Assistant Professor

## Philosophy Major

LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Required Courses: None.
Recommended Courses: Philosophy, Religion. UPPER DIVISION PROGRAM:

|  | Semester Hours |
| :--- | :---: |
| Required Areas: | 33 |
| Epistemology | 3 |
| Metaphysics | 3 |
| Ethics and Aesthetics | 3 |
| Logic | 3 |
| History of Philosophy | 6 |
| Philosophy Seminar | 3 |
| Other Philosophy Courses | 12 |
| Courses in one other discipline | 12 |
| Electives: | $\mathbf{1 5}$ |
|  | 60 |

Students must take all philosophy courses included in the major for a letter grade and earn a grade of C or better in these.
Remarks: A more detailed description of the Philosophy Program is 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 twelve semester hour credits required in one other academic discipline or unified area (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 9 semester hours outside the discipline; 6 semester hours of which are to be taken outside the department sponsoring the major program. For the various ways of meeting this requirement, please consult the Department.

The Department offers many of its courses at the Bay Vista Campus and also participates in the Humanities Major.


## Religious Studies Major

LOCATION: Tamiami Campus only<br>DEGREE: Bachelor of Arts

LOWER DIVISION PREPARATION:
Required Courses: None
Recommended Courses: Religion, Philosophy

## UPPER DJVISION PROGRAM:

> Semester Hours

Required Areas:
Religion and Culture 6
Eastern Studies 3
Biblical Studies 3
Religious Studies Seminar 3
Other Religious Studies Courses or Optional Tracks

Students must take all religious studies courses included in the major for a letter grade and earn a grade of C or better in these.
Remarks: A more detailed description of the Religious Studies Program is 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 twelve semester hour credits required in one other academic discipline or unified area (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 9 semester hours outside the discipline, 6 semester hours of which are to be taken outside the department sponsoring the major program. For the various ways of meeting this requirement, please consult the Department.

The Department offers many of its courses at the Bay Vista Campus and also participates in the Humanities Major.

# Philosophy and Religious Studies 

## Minor in Philosophy:

A student majoring in another academic discipline would earn an academic minor in philosophy by taking an approved pattern of at least four philosophy courses (12 semester 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 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 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 ( 12 semester 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 courses in one of the areas designated in the 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; PH1 - Philosophy; PHM - Philosophy of Man and Society; PHP - Philosophers and Schools.

## EDF 3542 Philosophy of Education

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 Philosophy
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 Philosophy
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 Philosophy

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 3420 Early Modern Philosophy
The basic concerns and teachings of representative philosophers and schools of thought in the period from the Renaissance to Kant and the linkages to their past and future are emphasized in this course.

## PHH 3440 Late Modern Philosophy

The basic concerns and teachings of representative philosophers and schools of thought in the period from Kant to Nietzsche and the linkages to their past and future are emphasized in this course.

## PHH 3700 American Philosophy

This course will examine the development of American philosophical thought, with particular attention to the 19th and 20 th centuries. It will consider the traditions and initiatives of the prominent American philosophers, in the light of problems such as the relationship between theory and practice.

## PHH 3840 Indian Thought

Major schools and works will be examined showing the development of lndian 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 4600 Twentieth Century Philosophy
The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the present century, and linkages to past and emerging generations are emphasized in this course.

## PHI 3010 Introduction to Philosophical Thinking

This introductory course examines the presence of philosophy and the role of philosophizing in man's search for understanding of himself and of his world. It includes the study of the basic structure, the many applications, and some basic issues of philosophical thinking, through a dialogue with those original sources, more accessible for a first learning experience in philosophy, which represent basic events in the history of philosophizing.
PHI 3100 Logic and Problem Solving (3)
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 deduc-
tive logic, fallacies, and the role of logic in scientific explanation and popular expression.

## PHI 3300 Epistemology

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 3320 Philosophy of Mind
An inquiry into the concept of mind and subsidiary concepts such as sensation, perception, desire, emotion, intention, volition, imagination, and intellect. The course will address the problem of the relation of mind and body and such topics as the concept of a person, the nature of intentional action, and the nature of consciousness.
PHI 3400 Philosophy of Science
The philosophic background of scientific method will be examined. Attention will be given to the philosophical consequences of conceptual change in the sciences. Such topics as the growth and unity of science, explanation and prediction, and the role of science in society will be explored.

## PHI 3500 What Is Reality?

(3)

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

What is intrinsically good? What ought one to do? How are moral claims justified? Competing views of major philosophers are considered.

## PHI 3700 Philosophy of Religion

This course will involve a study of the phenomena of religion, as a means of identifying and evaluating religion's essential and universal element. Consideration will also be given to the relations between the enterprises of philosophy and religion. The result of these investigations will then be applied to specific topics examined by both disciplines.

## PHI 3762 Eastern Philosophical and Religious Thought

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.

# Philosophy and Religious Studies 

## PHI 3800 Aesthetics

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 3949 Cooperative Education in Philosophy

A student majoring in Philosophy may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Permission of Cooperative Education and Major Department.

## PHI 4130 Symbolic Logic

This course provides an introduction to symbolic logic. Emphasis is upon both the formal techniques of analysis of argument and upon the theoretical aspects of formal logic.

## PHI 4221 Philosophy of Language

This course examines the nature and structure of language from various philosophical perspectives. It includes an analysis of such themes as language and culture, language and thought and the origin of language.

## PHI 4222 Philosophy of Dialogue

This course examines the meaning, the foundations, the limitations of dialogue, and the dialogical structure of expression and human relationships based on the Philosophy of Martin Buber. It includes a philosophical analysis of the dialogical principle and the application of its insights to the problems of human living and knowing.

PHI 4630 Contemporary Ethical Issues
After a review of basic questions regarding ethics, this course considers special ethical problems in contemporary society from the perspective of one or more philosophers or systems of ethics. Topics will be selected and announced in advance.

## PHI 4631 Ethical Issues in Business

After a review of basic questions regarding ethical knowledge, norms and systems, students will consider the ethical dimensions of current problems and issues facing the business manager or worker: corporate decisions, personal responsibility, product quality and performance, production, marketing and advertising, management, and general economic rationality.

## PHI 4632 Ethical Issues in Politics

After a review of basic questions regarding ethics, politics, and their relationship, students will consider with historical perspective some fundamental currents and alternatives in the
field of political ethics, and then will examine the ethical dimension of some contemporary issues facing the citizen, the public servant and the political leader, such as credibility, technocracy, conflict of interest, and violence.

## PHI 4633 Biomedical Ethics

After examining the foundations of ethics, this course will consider the human and ethical dimensions of current issues in the life sciences, such as the meaning of human living and suffering, ethics of genetic control, death and dying, personal responsibility in the medical and counseling professions.
PHI 4680 What is Value?
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

Philosophical implications of selected works and the impact of philosophical concepts such as the self, death, identity, alienation, responsibility, freedom and the absurd.

## PHI 4910 Independent Research

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

## PHI 4935 Philosophy Seminar

This seminar is designed for majors and other qualified students approved by the Department, and will be guided by one or more faculty members. The specific topic will be selected and announced in advance. The number of participants will be limited.

PHI 4949 Cooperative Education in Philosophy
A student majoring in Philosophy may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Permission of Cooperative Education and Major Department.

## PHI 5934 Special Topics

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

## PHM 3040 Philosophical Anthropology

This course attempts to interpret philosophically scientific perspectives concerning the nature of man and of the human condition. It seeks to elucidate the basic qualities that make man what he is and distinguish him from other beings.

PHM 3200 Social and Political Philosophy (3) The nature of society and the state, authority of society and the state over the individual, political obligation, legitimacy of government, and idea of social contract are considered.

## PHM 3500 Philosophy of History

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
This course analyzes the nature and meaning of love and sexuality, and studies the basic problems in human sexual living, such as love and the man-woman relationship, the formation of sexual union, and attitudes toward love and sexuality in contemporary society.

PHM 4050 Philosophy of Death
This course analyzes the meaning of death and man's attitude towards death and the dying. It examines how philosophy can share in the new confrontation between man and his death, and shows the ways philosophical thinking contributes to the discovery of an authentic attitude towards the phenomenon of death as part of human living.
PHM 4203 Contemporary Social and Political Issues
This course will examine the dimensions of change and order in contemporary societies, developed and underdeveloped, with particular attention to the human values involved, in the light of different philosophical theories and socio-political ideologies.

## PHM 4400 Philosophy of Law

After an analysis of the nature of law and judicial reasoning in the light of fundamental alternative interpretations, basic topics of legal philosophy will be considered, such as freedom and rights, responsibility and punishment, rule of law and civil disobedience, legality and justice.
PHP 3840 Chinese and Japanese
Philosophy
Philosophy
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

This course examines the philosophic insights of Marx and the main trends (anthropological, social, existential) in contemporary Marxism. It includes an analysis of the Marxist interpretation of alienation, work, and human authenticity.
PHP 4782 Phenomenology
This course analyzes the methods, the basic philosophical insights and the applications of 20th century Phenomenology. It includes the phenomenological analysis of knowing as well

# Philosophy and Religious Studies 

as basic questions regarding the nature of reality together with the study of fundamental texts from Husserl, Heidegger and Merleau-Ponty.
PHP 4784 Analytic Philosophy
This course examines the 20th century AngloAmerican 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 Existentialism
This course examines the origin, basic philosophical insights, and influence of the mainstreams of modern existentialism. It includes the study of fundamental texts of Kierkegaard, Nietzsche, Sartre, Jaspers and Camus.

## Religious Studies Major

Definition of Prefixes
REL - Religion.
GRW - Greek Writings.
REL 3040 Introduction to Religion
A survey of the basic elements in the phenomenon of religion. Discussion will include myth and symbol, ritual, mysticism and other forms of religious experience, the sacred, and religious community.
REL 3100 Religion and Culture
This course will explore both the ways religion uses culture to express its basic concerns and the ways that culture and lifestyle reflect religious perspectives. Attention will be given to traditional and popular expressions of American culture.
REL 3118 Art, Literature, and Religion
The presupposition of this course is that the deepest religious instincts of humankind have, through the ages, found expression in its cultural creations. Selected art and literary texts will be examined to see how these reflect an encounter with the sacred or with the particular religious problems of an age.
REL 3172 Religion and Ethics
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 3205 How to Study The Bible
This course introduces the Bible and the methods and tools of biblical study, including translations, word studies, historical studies, and the use of appropriate secondary resources.

## REL 3210 Hebrew Scriptures/ Old Testament

The Hebrew scriptures are the shared heritage of both Judaism and Christianity. This course will introduce their setting, religious development and concepts, and more important interpretations.

## REL 3224 The Prophets

This course will introduce the background of biblical prophecy, the lives of the prophets, and the significance of the prophetic messages. Subsequent and contemporary prophetic movements will be considered.

## REL 3243 The New Testament

This course is an introduction to the New Testament, to the lives and teachings of Jesus and Paul, and to issues concerning the contemporary interpretation of the Testament.

## REL 3250 Jesus in His and Our Times

This course is a study of Jesus as his actions and words are recorded in the New Testament. Attention will be given to the background of Jesus' thought and to later interpretations of his significance.

REL 3252 Theology of Paul
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 movernents in Judaism and Christianity.

## REL 3300 Religions of the World

Introduction to the major faiths of mankind. lncluded in the discussion will be Hinduism, Buddhism, Taoism, Judaism, and Christianity. This course will involve a comparison of common elements in these major religions while respecting their distinctive features.

REL 3310 Religions of the East
This course is a survey of the major religions of the east, including Hinduism, Buddhism, Taoism, and Confucianism in their classical forms and their contemporary interpretations.

## REL 3411 Meaning of Life

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.

## REL 3460 Religion, Science, and

 TechnologyThe methods, assumptions, and goals of religion will be considered alongside those of science and technology. This comparative examination will explore several important ways humankind seeks to discover ultimate meaning in order to understand and transform itself.
REL 3510 Early Christianity
This course will survey the development of Christian thought and practice from its beginnings as a primitive church to its establishment as a major faith in the Middle Ages. It will then consider the relevance of this early experience for modern movements of this faith.

## REL 3532 Reformation

The lives and thoughts of the leaders of the Protestant Reformation will be the focus of this course. Significant attention will be given to the 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 3600 Judaism

This course is an introduction to this major world religion. Foilowing 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 3939 Cooperative Education in Religion
A student majoring in Religion may spend one or two semesters fully employed in industry, government, or other appropriate institutional setting in a capacity relating to the major. Permission of Cooperative Education and Major Department.
REL 4173 Technology and Human Values
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 the understanding of human nature; and the relationship among technology, the natural environment, and hopes for a livable human future.
REL 4182 Mysticism East and West
A comparative study of mystical practice and experience as found in the writings of select major mystics of Eastern and Western traditions. An attempt will be made to discover if or in what ways the mysticism of the East is similar to that of the West.
GRW 4250 Introduction to Biblical Greek
(3)

This course introduces the Greek of the New Testament and other ancient writings. Its goal is to prepare students to use specialized dictionaries and other tools for biblical study, and for more advanced Greek study.

## Physics

REL 4311 Oriental Meditation
(3)

A detailed examination of the various techniques of meditation found in Eastern religious traditions. This examination will be pursued on both the theoretical and practical levels with major emphasis on class participation in the techniques themselves.
REL 4420 Contemporary Judaic-Christian Religious Thought
A survey of major figures in contemporary Jewish and Christian theology for the purpose of understanding their thought and its application to current issues in religion and society.
REL 4440 Man and Nature
This course will explore resources from philosophy and religion that could contribute to a solution of the current environmental crisis. Ethical issues of the environment will especially be examined in the light of these resources.

## REL 4481 Contemporary Latin American Religious Thought

The major trends of religious thought in Latin America and their impact on the society of the area will be investigated. Special reference will be made to Post-Vatican 11 theology and to very recent theologies of liberation.
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 4808 Applied Theology
(VAR)
The study of contemporary problems and methodologies of pastoral theology both in a practical and a 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

This seminar is designed for majors and other qualified students approved by the Department. The specilic topic will be selected and announced in advance. The number of participants will be limited.

## REL 4949 Cooperative Education in Religion

(3)

A student majoring in Religion may spend several quarters fully employed in industry, government, or other appropriate institutional setting in a capacity relating to the major. Permission of Cooperative Education and Major Department.
REL 5937 Special Topics,
Topics will be selected to meet the academic needs of groups of students.

The Department of Philosophy and Religion also participates in the Continuing Education Program of the University and thus serves the community and prolessional 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.

## Physics:

John W. Sheldon, Professor<br>Kenneth A. Hardy, Associate Professor Stephan L. Mintz, Associate Professor Richard A. Bone, Lecturer

The physics program is part of the Department of Physical Sciences. Additional information and counseling may be obtained from the De partmental Office. No D grades will be allowed in courses required for the major.

## Bachelor of Science

This program prepares students for careers as professional physicists in industry, government, or for continuing to graduate school in physics, engineering, or material science. It also prepares students for teaching careers. Students interested in teacher certification refer to the School of Education.

## LOWER DIVISION PREPARATION:

Required Courses: part of the 60 semester hours ( 90 quarter hours) of lower division coursework should be in the sciences.
Recommended Courses: algebra and trigonometry; one year of general chemistry, differential and integral calculus, one year of physics with calculus including lab. These courses may be taken at the University, if not completed at the lower division.

## UPPER DIVISION PROGRAM:

Semester Hours
PHY 3123, PHY 3124

$$
\text { Modern Physics } 6
$$

PHY 4323, PHY 4324
Electromagnetism 6
PHY 4221, 4222
Mechanics 6
PHY 3503/CHM 3410
Thermodynamics 3
PHY 4604 Quantum Mechanics 3
PHY 4810L, PHY 4811 L
Senior Physics Lab

PHY 4921 Synopsis of
Undergraduate Phys. 1
Approved electives in experimental or
theoretical Physics 8
Mathematics elective beyond 6 semester hours calculus 3
or Special Topics PHY 4936, 4937
or PHY 5936, 5937
3
PHY 4905, 4906, 4907
Independent Study 3
Approved etectives*

*Must include PHY 3040 - 3041 and Laboratory if the equivalent is not taken in the lower division.

## Minor in Physics:

This is designed for the student who plans to take the introductory physics sequence PHY $3040 \mathrm{C}-3041 \mathrm{C}$ or its equivalent.

Semester Hours
PHY 3040, 3041
Physics with Calculus 6
PHY 3045, 3046

> Recitation

4
PHY 3040L, 3041L
Lab
2
PHY 3123, 3124
Modern Physics 6
Additional approved courses

6

## 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 semesters 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 <br> Definition of Prefixes

AST - Astronomy; PHS - Physics -Specialized; PHY - Physics; PSC - Physical Sciences; ENU - Nuclear engineering.
AST 3025L Observational Astronomy
A study of astronomical objects visible from Miami: stars and their constellations, planets,

## Physics

binary stars, star clusters, variable stars, nebulae and galaxies will he discussed and observed.

## AST 3050 Modern Astrophysics

An introduction to the structure of stars and galaxies and the evolution of the universe as a whole. Topics will include atomic spectra, stellar classifications, galactic structure and cosmology. Prerequisites: PHY 3040C-3041C, Calculus I and II, and AST 3100.

## AST 3100 Modern Astronomy

The structure and evolution of our solar system is studied with particular emphasis on physical concepts. Topics will include astronomical coordinate systems, celestial mechanics, the earth's motions, and a description of the solar system. Prerequisites: College algebra and geometry.
ENU 4101 Introduction to Nuclear Reactors (3) An elementary course in nuclear fission reactor theory and power plant operation. An overview of the relevant nuclear processes and their application to reactor design. Prerequisites: MAC 3411-3412, Calculus I \& 11; PHY 3040-3041. General Physics with Calculus I:II.
PHS 4303 Nuclear Physics
A treatment of the current state of the nuclear theory problem and a discussion of modern experimental methods.
PHS 5125 Seminar in Theoretical Physics
The theoretical foundation of classical mechanics, relativity, fields, quantum mechanics, group theory and relativity.
PHS 5400 Solid State Physics
Crystalline form of solids, lattice dynamics, metals, insulators, semi-conductors, and dielectric materials. Prerequisites: general chemistry, general physics with calculus, and mathematics through Calculus II.

## PHY 3033 Physical Aspects of Unsolved Mysteries

Topics peripheral to orthodox science, such as UFO's, attempts to communicate with alien beings, the theories of Velikovsky, Stonehenge, and psychic phenomena, are presented for discussion. Emphasis is on physical ideas, scientific reasoning, and the interplay between theory and experiment.

## PHY 3040C-PHY 3041C Physics with Calculus

Basic Physics sequence for students with calculus. Lecture only. PHY 3040D, 3041D must be taken concurrently. PHY 3040 will cover Kinematics, Newton's Laws, conservation laws, gravitation, fluid dynamics, sound, and thermodynamics. Prerequisite: Differential calculus, corequisite: Integral calculus. PHY 3041 will cover electricity and magnetism, field theory, classical optics, modern optics and modern physics. PHY 3040 prerequisite.

PHY 3040L, PHY 3041L Junior Physics Laboratory
Laboratory section of PHY 3040 and PHY 3041.
PHY 3040D, PHY 3041D Physics with Calculus Recitation Section
(2)

Recitation section for PHY 3040 and PHY 3041. The student will solve problems associated with lecture material presented in PHY 3040 and PHY 3041.

## PHY 3050C PHY 3051C Physics Without

 Calculus Lecture SectionIntroductory Physics for students without calculus. Prerequisite: Students must have college algebra, trigonometry and analytical geometry. Students must take PHY 3050D 3051D concurrently.
PHY 3050L, PHY 3051L Physics Without Calculus Laboratory
Laboratory section of PHY 3050 and PHY 3051.

## PHY 3050D PHY 3051D Physics Without

Calculus Recitation Section
Students will solve problems associated with material presented in PHY 3050C, 3051C.

PHY 3123, PHY 3124 Modern Physics
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

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 Thermodynamics

Fundamental principles of thermodynamics, the first, second, and third laws, free energy, entropy, the chemical potential, phase rule and its applications. Prerequisites: general chemistry, general physics with calculus and mathematics through Calculus II.

## PHY 3772 Electronics

Including solid state theory and the theory of circuits, circuit operation and design in lecture and laboratory sessions.
PHY 3949, PHY 4949 Cooperative Education in Physical Science One semester 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.

PHY 4221, PHY 4222 Seminar in Intermediate Classical Mechanics I \& II (3) Laws of motion, statics of particles and rigid bodies, motion of particles in one-two and three dimensions, systems of particles, rigid bodies in a plane, central forces. Prerequisite: PHY 3040 or equivalent, differential and integral calculus. Accelerated reference systems, rigid body in 3 dimensions, generalized coordinates, Lagrangian and Hamiltonian formulations of mechanics, vibrating systems and normal coordinates.
PHY 4323, PHY 3242 Seminar in
Electromagnetism

The theory of electromagnetic fields and waves is developed from asic principles. Vector calculus, Coulomb's law, Gauss's Law, electrostatic potential, dielectrics, solutions to La Place'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 Statistical Thermodynamics
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 BoseEinstein distribution functions applied in the Boltzmann limit to the calculation of thermodynamic variables. Prerequisites: general chemistry, general physics with calculus, and mathematics through Calculus II.

## PHY 4604 Quantum Mechanics 1

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 with calculus, and mathematics through calculus or differential equations recommended.

## PHY 4750L Introduction to Scientific

 InstrumentationThe 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 Lab
Advanced laboratory topics are treated. Modern physics laboratory equipment is used, and the student is introduced to current laboratory practice.

## Political Science

## PHY 4905, PHY 4906, PHY 4097 Independent Study

The student will work under the supervision of a faculty member on subject material of mutual interest.
PHY 4921 Synopsis of Undergraduate Physics
A comprehensive review of undergraduate physics given in seminar form, on subjects of special interest to the students attending.
PHY 4936, PHY 4937, PHY 4938 Special Topics
(VAR)
In-depth study of topics of special physics interest.

PHY 5250 Physics of Fluids
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 Students are introduced to research techniques by assisting with an original investigation in experimental or theoretical physics.

## PHY 5910 Seminar in Advanced

Theoretical Mechanics
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
The student will work under the supervision of a faculty member on subject material of mutual interest.

PSC 3001 Concepts in Physics
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.
PSC 3351 Earth Physics
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
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. For nonscience majors.

## Political Science Major

Judson De Cew, Assistant Professor and Chairperson<br>Joel Gottlieb, Associate Professor<br>Antonio Jorge, Professor<br>Joyce Lilie, Associate Professor<br>Brian Nelson, Associate Professor<br>Mary Volcansek, Associate Professor Mark Rosenberg, Assistant Professor<br>John Stack, Assistant Professor Arthur Svenson, Assistant Professor Christopher Warren, 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.

## LOWER DIVISION PREPARATION:

Students should complete a minimum of 60 semester hours ( 90 quarter hours), including the general education requirements. If a student has completed a minimum of 18 semester hours of general education credits, it is still possible to be accepted into this program. However, the general education deficiencies need to be completed prior to graduation from Florida International University. Listed below are the required and recommended courses to enter this upper division major:
Required Courses:
Semester Hours
American Government*
3
Recommended Courses:
State and Local Government
Intemational Relations 3
Americanor World History 6
Economics 3
Introduction to Logic 3
Advanced Composition 3
Mathematics or Statistics 3
*Remarks: The American Government requirement may be fulfilled by taking POS 3044 at entrance to Florida International University, concurrently if desired, with other requirements of the major. POS 3044 will not, however, fulfill either the breadth or depth requirements of the major.


Florida International University Program: In Political Science, specific courses are not required. Rather, courses are chosen freely but must be distributed in the following manner:

## A.Breadth Requirements

One course in each of the following fields:
AMERICAN POLITICS (AP)
Breadth area requirement can be met by one of the following courses:

PAD 3003 - The Administrative Process
POS 3153 - Urban Politics
POS 3424 - The Legislative Process
POS 3453 - Political Parties
POS 3413 - The Presidency
JUDICIAL POLITICS (JP)
Breadth area requirement can be met by one of the following courses:

> POS 3283 - The Judicial Process
> POS 3603 - Constitutional Law: Powers
> POS 3604 - Constitutional Law: Limits

COMPARATIVE POLITICS (CP)
Breadth area requirement can be met by one of the following courses:

CPO 3055 - Authoritarian Politics
CPO 3103 - Government and Politics of Western Europe
CPO 3304 - Latin American Politics
CPO 3502 - Government and Politics of the Far East
CPO 3643 - Government and Politics of Soviet Union and Eastern Europe
INTERNATIONAL POLITICS (IP)
Breadth area requirement can be met by one of the following courses:

INR 3002 - Dynamics of World Politics
INR 3102 - American Foreign Policy
POLITICAL THEORY AND METHODOLOGY (PT)
Breadth area requirement can be met by one of the following courses:

POT 3013 - Ancient and Medieval Political Theory
POT 3054 - Modern Political Theory I
POT 3055 - Modem Political Theory II
POT 3302 - Political Ideologies
POT 3064 - Contemporary Political Theory
POT 3104 - American Political Thought

## Political Science

## B. Depth Requirements

Five courses in any one of these three areas of concentration:

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1. AMERICAN/JUDICIAL POLITICS (AP, JP) Courses chosen may be all "AP" or "JP" or a mix of both
2. COMPARATIVE/INTERNATIONAL POLITICS (CP, IP) Courses chosen may be all "CP" or "IP" or a mix of both
3. POLITICAL THEORY (PT)
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C. Electives:

The remaining courses necessary to complete the B.A. requirements may be taken outside the major but are normally chosen to complement the student's academic and career interests.
D.Remarks:

Students intending to graduate with a degree in Political Science must have a "C" or better in all courses used to fulfill the breadth and depth requirements of the major.

## Minor in Political Science:

Tamiami and Bay Vista Campuses
I. No required courses, but note that POS 3044 will not count toward the minor.
2. Minimum of 5 courses in Political Science
3. Maximum of 1 course each in Political Science internships and independent studies may apply to the 5 course 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 skitls important to a pre-law student include: (1) thinking logically, (2) reading intelligently, and (3) expressing oneself clearly. Beyond these basic skills, the department encourages the student to acquire a broad background in political science, rather than to select onty 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 in one broad area. For most prelaw 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.
Internships - The Department provides the student with opportunities for work-study experiences in governmental and nongovernmental agencies. Five categories of internships are available to students: (1) judicial internships, (2) administrative internships, (3) legislative internships, (4) campaign in-
ternships, 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 members and receive written permission to enroll. Ordinarity, 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.

Upper Division Transfer Credit - 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 hours 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

COP - Comparative Politics; INR - International Relations; PAD - Public Administration; POS - Political Science; POT - Political Theory; PUP - Public Policy.

COP 4002 Theory in Comparative Politics (3) 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 4303 Government and Politics of South America
A cross-nationat 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)

## CPO 3304 Latin American Politics

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. (CP, PT)

## CPO 4323 Government and Politics of the Caribbean

(3)

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 hetped 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 4333 Central American Politics

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 modemization 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 3643 Government and Politics of the

Soviet Union and Eastern Europe (3)
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 the Marxist-Leninist idealogy 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. (CP)
CPO 4034 The Politics of Development and Underdevelopment
This course is an analysis of the causes of devel-

## Political Science

opment and underdevelopment in Third and Fourth Worid 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/lP)

## CPO 3055 Authoritarian Politics

(3)

The purpose of this course is to identify the conceptual and empirical characteristics of authoritarian regimes. An ideal typical authoritarian regime will be estabtished, followed by case study analyses of modern authoritarian systems, like those of Brazit, Mexico, and Portugal. The course is designed to analyze the circumstances giving rise to non-totalitarian modern dictatorships, their poitical dynamics and their survival capability. (CP)
CPO 4072 Comparative Electoral Behavior (3) Public opinion, voting choice, and electoral patterns from a comparitive and historical perspective. Attention will focus on Western Europe and Latin America. Differences from North American trends and patterns will also be detailed. (CP)

## CPO 3103 Government and Politics of Western Europe

Studies of 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 students to better understand the nations which have supplied many of the theoretical foundations of modern politics. (CP)
CPO 4360 Cuban Politics
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 Dymamics of World Politics
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 and examination of the nation-state system. Attention is given to the use of force in intermational 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 poiitics. (IP)

## INR 3403 International Law

The law of nations, including the laws of war. Inciudes a discussion of the development of legat 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 understand the difficuities involved in maintaining world peace. (IP, JP)

## INR 4084 Ethnicity in World Politics

This course examines the political dimensions of ethnic conflict from a comparative perspective. It evaluates the dynamics of ethnic conflict in Western Europe, Africa, Latin America, and the United States, through a series of case studies. (IP)
INR 3102 American Foreign Policy
An examination of the legai, administrative, and political structure by which American foreign policies are formulated and impiemented. 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 4204 Comparative Foreign Policy
This course is an analysis of the development of the foreign policy-making process in the United States, Britain, France, West Germany, and ltaly. Particular attention is directed to the domestic and international factors which affect the making of foreign policy. (CP, IP)

INR 4244 Latin American in World Politics (3) This course will be primarily concerned with Latin America's rote in the world political system. Of special interest wili 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, inctuding the Panama Canal, will be selected for study. (CP, IP)

## INR 4407 Political Foundations of International Law

An examination of the interaction between politics and international law, with particuiar 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 facuity. Ailows the student to choose topics of particular interest to him or her.
INR 6007 Seminar in International Politics (3) Graduate seminar on special topic in internationat politics. Topic to be announced in advance.

## INR 6205 World Politics

This course provides graduate students with an understanding of the major conceptual approaches to world politics. It emphasizes the analysis of significant actors, institutions and processes at work in the contemporary global system as well as possible future alternatives.

## PAD 3003 The Administrative Process

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 4803 Urban Government and

Administration

A study of the organization, administrative decision-making, and process of urban government; interaction with the political process. This course attempt to provide students with an understanding of the basic structure of urban government and administrative decisionmaking processes. The interaction of bureaucracy with political parties, interest groups, and voluntary citizen association groups will be examined. (AP)
PAD 4944 Administrative Intemship (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 (3) 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 3044 Government and Politics of the U.S.
(3)

An examination of the origin and development, structure and operation of the Government of

## Political Science

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 4122 State Government and Politics (3) A study of the political processes, structure, and development of state systems. This course attempts to provide the student with an understanding of the basic structure of state government and political processes. (AP)
POS 3153 Urban Politics
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

An introduction to the study of public law. Examines the relationship between politics and judicial structure and process. Emphasizes the judicial system as a particular kind of policymaking system, and evaluates its strengths and weaknesses from a policy-making perspective. (JP)

## POS 3424 The Legislative Process

Examines the context and process of legislative decision-making, including the impact of elections, groups, bureaucracies and the norms of legislative behavior. Evaluates legislatures in light of various theories of representation and conflict-management. (AP)

## POS 3453 Political Parties

Studies the internal structure, political functions, and behavior of modern political parties. Attention is given to the relationships between political parties and various economic, military, ethnic, and regional interests. Enables the student to understand the problems of expressing and structuring political demands to facilitate or obstruct governmental decision-making. (AP)
POS 3603 Constitutional Law: Powers
An examination of the basic principles of American government, as defined through constitutional law. Focus will be on the nature of the union, federalism, national government powers, separation of powers, state government powers, and powers of the respective branches of government. (JP)
POS 3604 Constitutional Law: Limitations (3) 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 3703 Methods of Political Analysis
An introduction to the principal concepts and techniques of data collection and organization in political science. Includes practical exercise in data collection and organization. Highly recommended for those planning graduate study. (PT)

POS 3949 Cooperative Education in

## Political Science

A student majoring in Political Science may spend several quarters fully employed in industry or government in a capacity relating to the major.

## POS 4154 Topics in Urban Politics and Policy

An examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is on the ways in which urban problems are identified and proposed solutions formulated, legitimized, and administered by urban policy-making processes, includes a discussion of urban political culture. Enables the student to understand the major problems confronting communities in urban areas. (AP)

POS 4233 Opinion and Electoral Behavior (3) 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 4253 Political Violence and Revolution (3) 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. (CP, PT)

## POS 4284 Judicial Behavior

An examination of various approaches, theories, and findings on the behavior of judicial actors, particularly as it relates to judicial decisionmaking. The focus of the course will be on judges, lawyers, prosecutors, and other relevant actors in the judicial process. (JP)

## POS 3413 The Presidency

An examination of the various interpretations of the Presidency. Attention is directed to the role of the President in a technocratic society. Enables the student to understand one of the most visible political institutions. (AP)

POS 4463 Interest Group Politics
An examination of the various types of voluntary associations which seek to influence the politi-
cal process. Special attention is given to the role of private power in a pluralist system. Enables the student to understand the ambivalent American attitude towards pressure groups and lobbying activities in the legislative and administrative arenas. (AP)

## POS 4493 Politics of Judicial Administration

This course is designed to examine the process of judicial administration, particularly from the political perspective. The politics of selecting judicial personnel, financing, budgeting, disposition of litigation, reorganization, and intergovernmental relations will be included. (JP)

POS 4496 Comparative Judicial Politics
(3)

An examination of the various modes of dispute settlement and rule adjudication crossculturally. 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 4713 The Logic of Data Analysis in

 Political Science(3)

An introduction to the major concepts employed in the analysis of political data. Emphasis is on the logic of explanation rather than the techniques of such explanation. This is not a course in statistical method. Highly recommended for those planning graduate study. (PT)

## 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 4941 Legislative Internship
(VAR)
An opportanity 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. (AP)

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. (JP)
POS 4949 Cooperative Education in Political Science
A student majoring in Political Science may spend one or two semesters fully employed in industry or government in a capacity relating to the major.

# Political Science 

## POS 5605 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. (JP)

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)
Graduate seminar on special topics in urban politics. Topic to be announced in advance.
POS 6934 Seminar in Politics
(VAR)
Subject matter varies according to instructor.
POT 3013 Ancient and Medieval Political Theory
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 1

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 (3) 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 3055 Modern Political Theory II
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 3204 American Political Thought
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 3302 Political Ideologies

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. (PT)
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. (PT)
POT 6007 Seminar in Political Theory (VAR) Graduate seminar on special topic in political theory. Topic to be announced in advance.

## PUP 3004 Public Policy: U.S.

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 4203 Environmental Politics and Policy

A systematic examination of environmental policy making, emphasizing the various steps involved in transforming private preferences into authoritative public policies. Special attention is directed at the unique political problems posed by pollution, preservation of natural areas, natural resource management, population dynamics, and ecological imperatives. Designed to enable the student, particularly the environmental studies student, to understand the overlapping policy matrices which constrain environmental action. Also enables the student to identify critical decision points in the environmental policy-making process. (AP)

## PUP 4314 American Ethnic Politics

This course examines American ethnic politics from conceptual and substantive perspectives. Special attention is devoted to the theoretical dynamics of ethnicity as well as an intensive investigation of Irish, Italian, Jewish, and Black ethnic politics. (AP)

## PUP 4323 Women in Politics

Examines the role of women in the political system as they act within, and are affected by, politics. Special attention to current and enduring political issues which particularly affect women. (AP)

PUP 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. (AP)
PUP 6007 Seminar in Public Policy (VAR) Graduate seminar on special topic in public policy analysis. Topic to be announced in advance.
CPO 3502 Government and Politics of Far East
An intensive examination of the major political institutions of China, Japan, and Korea. A critical analysis of changing aspects of traditional relationships in Far Eastern political culture and major reform movements in contemporary Far Eastern politics. Allows the student to better understand nations whose political development will be an important factor in global development.
CPO 4053 Political Repression and Human Rights
Examination of domestic factors resulting in political repression and violations of human rights. American, European, and South American examples will be used.
CPO 5935 Topics in Comparative Politics (3) 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 6939 Seminar in Comparative Politics (3) Graduate seminar on special topic in comparative politics. Topic to be announced in advance.

## INR 4501 Multinational Organizations

The course examines contemporary international politics through an analysis of intergovernmental and non-governmental actors. It emphasizes the prominent role played by increasing levels of transnational relations, interdependence, and global dominance in world politics.
INR 4932 Topics in International Law
An 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 6937 Seminar in International Law (3) Allows for specialized and topical offerings by regular and visiting faculty. Also permits experimental courses.
INR 4933 Topics in International Politics
An examination of selected topics with an international dimension. Subjects will vary, depend-

## Psychology

ing upon the desires of both students and faculty. Allows the student to choose topics of particular interest to him or her.
INR 5936 Topics in International Politics
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.
POS 4930 Topics in Public Law
An examination of selected topics in the field of public law. The subjects will vary depending upon the desires of students and faculty.

POS 5932 Topics in Urban Politics
An extensive 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.

POS 6936 Seminar in Public Law Graduate seminar on special topic in public law. Topic to be announced in advance.
PUP 4931 Topics in Public Policy
An 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 interests to him or her.

URP 4146 Planning and Human Ecology (3)
A social and political introduction to urban and environmental planning and design utilizing a human ecology perspective. Examines issues of open space planning, urban design, neighborhood planning, and citizen participation.

## Psychology Major

Jacob Gewirtz, 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, Associate Professor Benjamin Algaze, Assistant Professor
Nancy Blaney, Assistant Professor Lee Brownston, Assistant Professor Luis Escovar, Assistant Professor

Arthur Flexser, Assistant Professor
Paul Foos, Assistant Professor
Mary Levitt, Assistant Professor
Vincent Skotko, Assistant Professor
LOCATION: Tamiami and Bay Vista Campuses
DEGREE: Bachelor of Arts
LOWER DIVISION PREPARATION:
Required Course: Introductory Psychology
UPPER DIVISION PROGRAM:
Semester Hours
Specific Required Courses in Psychology 10
PSY 3043C

1. Advanced General

Psychology
5
Lecture (2)
Laboratory (3)
Note: Lecture and Laboratory to be taken concurrently in junior year.
Prerequisites: STA 3122 must be taken before PSY 3043C.
2. Other advanced
laboratory or field
experience

Note: To be taken during senior year.
Prerequisites: PSY 3043C, STA 3122.
Required Course in Statislics
STA 3122 (3)
Note: STA 3123 and COP 3112 (Mathematical Sciences Department) are recommended for students planning to enter graduate school. Elective Courses in Psychology at least 21
Note: PSY 4693C is especially recommended for the student planning to take the psychology specialty part of the Graduate Record Examination.
Elective Courses Outside of Psychology: See College-wide requirements at least 6

## Distribution Requirements:

In the course of fulfilling the above requirements, each student must take one course from each of the five areas A-E below. Note that, in each area, either a lecture course or a laboratory/field experience will suffice.

Lecture
Area A: Experimental
EXP 3523
EXP 4204
EXP 4605
PSB 4003
Area B: Social
SOP 3004 SOP 4215C
SOP 4522
SOP 4714C
SOP 4525
SOP 4842
Area C: Community / Industrial / Consumer
CYP 3003
CYP 4953
INP 3002
INP 4055 C
SOP 4712
SOP 4649

## Lecture

Laboratory/Field
Area D: Personality / Abnormal
CLP 3003
PPE 4325C
CLP 4144
EXP 3304
PPE 3003
Area E: Developmental
DEP 3001
DEP 4704C
DEP 3402
DEP 4164
DEP 4464
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; (3) A grade of "C" or better is necessary in all courses required for the major. Elective courses may be taken under the Pass/Fail option if so offered.

## Bachelor's degree with honors:

Application must be made and departmental approval granted, before the second semester 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.

## Minor in Psychology

A minor in psychology requires 15 semester hours of approved psychology credits. Students seeking the minor must meet with a psychology faculty member for advisement and should file with the Psychology Department a written notice of intention to minor in psychology. A grade of "C" or better (or "Pass" if taken under the Pass/Fail option) is required in all courses counted toward the minor.

## 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 part of their course work at FIU and may undertake the 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.

For information, write or call: Psychology Department, College of Science, Florida Atlantic University, Boca Raton, Florida 33431. Telephone (305) 395-5100, extension 2582. To apply for admission, write to: Director of Admissions, Florida Atlantic Universily, Boca Raton, Florida 33431.

## Master of Science in Community Psychology

The Department of Psychology currently offers graduate study for 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 community psychology program at Florida Intemational University is designed to train practitioners and researchers who can function in a variety of academic and applied settings. The core curriculum is intended to provide students with a broad base of knowledge in community psychology; the advanced phases of training offer the possibility for specialized training in three broad areas: community intervention and institutional change; life span development and primary prevention; and research and intervention in multicultural settings. A distinctive feature of the program is its emphasis on a close working relationship between students and faculty and the development of indjvidual specialty areas for students. Students are encouraged to develop, under faculty supervision, individually tailored programs of study that reflect both student interests and program strengths. Electives must be approved by the student's advisor during the lirst year and by the student's thesis committee during the second year.

The curriculum consists of 48 semester hours of graduate study in which the exposures focus specifically on training the student to perform the skills mentioned above. Students are expected to select electives, project/thesis topics and supervised field experiences that meet not only the degree requirements, but also their academic interest and particular entry-level professional objectives.

## 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 acquire 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 9 semester hour credits eamed 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 Social History, Systems, Overview
Differential or Individual Differences (not statistics) Abnormal, Personality Community Industrial Motivation
CATEGORY II Satisfactory completion of one psychology laboratory course.

CATEGORY III Satisfactory completion of one basic experimental course from areas such as learning, conditioning, physiological, perception, memory or related areas.
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. Request application forms from the Admissions Office, Florida International University, Miami, Florida 33199. Information about the program itself must be requested from the Psychology Department.
2. Submit a completed graduate application for admissions form to the Admissions Office.
3. 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. Copies submitted directly by applicants are not accepted for application purposes.
4. Have an official copy of the results of the Graduate Record Exam (GRE) sent to the Admissions Office. The GRE's are administered nationally and in many foreign countries by the Educational Testing Service, Box 955, Princeton, New Jersey 08540.
5. Submit photocopies of the documents in points 2, 3, and 4 directly to the Admissions Committee, Community Psychology Program, Department of Psychology, Florida International University, Miami, Florida 33199.
6. Submit to the Community Psychology Program Admissions Committee three letters of recommendation from previous institutions.
7. Submit to the Community Psychology Program Admissions Committee a brief essay stating reason(s) for interest in the program.

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## Degree Requirements

To be eligible to receive the Master's degree, a student must satisfy (a) all University requirements for a Master's degree and (b) the specific requirements of an approved program of study.

All students in this program of study are expected to complete a 27 semester-hour core course requirement. The core course sequence includes a two-semester field or practicum experience and a two-semester master's project of 6 semester hours.
In addition to the core, students in Community Psychology are required to complete at least 27 semester hours of courses, which focus on the major skills relevant to the settings in which community psychology is practiced. Students are expected to take 6 semester hours of electives either in the Department of Psychology or in other departments as appropriate to their program objectives.

## Typical Program of Study

1. Core Courses (required of all students): INP 6940 Strategies and Methods of Applied Psychological Research 3 credits STA 5707 Multivariate Analysis 3 credits
CYP 5535 Psychology of Institutional and Social Change 3 credits CYP 6936 Current Issues in Community CYP 6937 Seminar in Community Psychology 3 credits CYP 6956 Field Experience 6 credits PSY 6971 Masters Thesis /

Project 6 credits
2. Additional required courses (at least 5 courses, the equivalent of 15 semester hours, must be completed):
STA 5126 Design of Experiments
3 credits
CYP 5526 Program Evaluation 3 credits
CYP 6536 Consultation 3 credits
CYP 5515 Psychological Services
Administration 3 credits
SOP 5765 Community Develop-
ment 3 credits
SOP 5616 Social Psychology of
Organizations 3 credits
CYP 5534 Small Groups as Change
Agents 3 credits
CLP 5185 Issues in Mental Health 3 credits
DEP 5405 Maturing Adult 3 credits
PSY 5908 Directed Individual
Study VAR. credits
3. Electives: 6 credits ( 2 courses) within or outside the psychology department; advisor approval required.
4. Total: A minimum of 48 semester hours.
5. Typical Curriculum for a full-time student:

|  | FALL | SPRING |
| :---: | :---: | :---: |
|  | CYP 6936* | CYP 5535* |
| FIRST | STA 5707* | CYP 5515 |
| YEAR | CYP 5526 | INP 6940* |
|  | CYP 5534 | CYP 6536 |
|  | CYP 6956* | CYP 6956* |
| SECOND | PSY 6971* | PSY 6971 |
| YEAR | SOP 5765 | CLP 5185 |
|  | ELECTIVE | ELECTIVE |

*These core courses should be sequenced as shown. Strongly recommended, as scheduled, are CYP 5526 and CYP 6536. Part-time students must, as a minimum, enroll in the core ( ${ }^{*}$ ) courses during the semesters of the first year.

## Grades, Credits, and Course Loads

The maximum recommended course load for full-time graduate students is 12 hours per semester. The recommended course load for working or part-time students is 6 semester hours. Approval for exceptions must be obtained from the Community Psychology Committee. 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 four years immediately preceding the awarding of the degree. A student may receive permission to transfer up to a maximum of 6 semester 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 Department will then communicate conditions which must be met in order for the student to continue to erroll.
DISMISSAL: A student on PROBATION whose cumulative and semester GPA falls below 3.0 will be automatically dismissed from his/her program and the University.

## Course Descriptions

## Definition of Prefixes

CLP - Clinical Psychology; CYP - Community Psychology; DEP - Developmental Psychology; EAB - 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
Study of personal adjustment in the social and occupational life of the individual. Emphasis on interpersonal aspects of effective behavior.

CLP 4144 Abnormal Psychology
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 Psychotherapy
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 Abnormal Psychology (3) 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 "praticum" assignments if feasible) are covered.

## CLP 5175 Personality Dynamics

A review of different approaches to the study of personality dynamics and of the related therapeutic modalities. Special consideration is given to psychoanlysis 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
A critical, intensive examination of selected, important issues in mental health. Emphasis is given to the empirical study of contemporary

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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 5186 Issues in the Treatment and Delivery of Services to Hispanics
(3)

A review of the practical applications of the concepts of biculturality and acculturation in a multiethnic setting and their implications for the treatment and delivery of services to Hispanics. Prerequisites: CYP 6765 and CYP 6766 or permission of instructor.
CLP 5187 Issues in the Treatment and Delivery of Services to Blacks
A review of the consequences of institutionalized forms of social interaction among different racial groups and their implications for the treatment and delivery of services to Blacks. Prerequisites: CYP 6765 and CYP 6766 or permission of instructor.

## CLP 5931 Ethical Code in Psychological Practice

An examination of the ethical standards for psychological practice as established by the American Psychological Association, and the Association's standards for delivery of psychological services. Prerequisite: Admission to graduate study in psychology; (other graduate students admitted by permission of instructor).
CYP 3003 Introduction to Community Psychology
An introduction to the issues and scope of Community Psychology. Students will be exposed to the development of Community Psychology as a growing discipline. Particular emphasis will be placed on the role of the community psychologists as an agent of social change.
CYP 4953 Community Psychology Field Experiences 1
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

 AdministrationA 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 adminis-
trative behavior in the public sector. Prerequisites: enrollment in graduate program at FIU; permission of instructor.

## CYP 5526 Psychological Methods of Program Evaluation

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 5534 Groups as Agents of Change
Theory and practice in utilizing groups as agents of change or development in communities and organizations. Didactic presentation and structured exercises focus on relevant issues. Students design and implement problem-focused interventions, using class as client system.

## CYP 5535 Psychology of Institutional and

 Social ChangeA 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
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
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, exclusive of public school settings.
CYP 6536 Principles and Methods of
Psychological Consultation
An analysis of the basic psychological approaches underlying consultation, with special emphasis on the practical application of the processes of learning, cognition, and interpresonal 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 6765 Psychological Theories and
Research on Acculturation and Multiculturalism
A review of theories and research on acculturation and multiculturalism concepts with an emphasis on those models that have generated a
substantial body of empirical research. Stress will be placed on the implications of these findings for community stability and disruption as well as the implications for the delivery of human services in multicultural settings.
CYP 6766 The Psychology of Crosscultural Sensitization in a Multicultural Context
A series of weekly seminars to increase student sensitivity to working with clients from different cultural backgrounds. The objectives of the course are: (1) facilitating student awareness of cultural differences and their impact on social and human services delivery systems, (2) identifying the student's own personal cultural biases and values when interacting with culturally different persons, and (3) teaching students to develop culturally appropriate intervention skills.

## CYP 6936 Current Issues in Community

 PsychologyAn intensive analysis of contemporary theoretical, practical, and professional aspects of the field of Community 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 6937 Seminar in Community Psychology
In-depth examination of specific scientificprofessional areas of importance in the field of Community Psychology, including the current research and practice in Community assessment and advocacy, systems analysis, human relations facilitation, program evaluation, and related topics of interest to graduate students. Prerequisites: Graduate status in the M.S. program in Community Psychology or 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 55I5, CYP 6936, CLP 593I, STA 5126, STA 5707.
DEP 3000 Human Growth and Development: Introductory Developmental Psychology
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. The full life span of human growth and development will be considered.

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DEP 3001 Psychology of Infancy and Childhood
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.
DEP 3303 Psychology of Adolescence
An examination of psychological, sociological and biological factors contributing to the changes from childhood to adolescence, and from adolescence to young adulthood.
DEP 3402 Psychology of Adulthood
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 Psychology of Moral Development
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 4164 Children's Learning
Learning in infancy and childhood, with particular emphasis on simple conditioning, discrimination shifts, mediation, transposition, observational and concept learning. Prerequisite: Students enrolling in this course should have completed successfully at least one prior course in developmental psychology.
DEP 4204 Pediatric Psychology
Aspects of normal and abnormal child care and child rearing are examined. Adult-child interaction in the home and in instutional settings is explored, and common problems of childhood discussed.
DEP 4213 Childhood Psychopathology (3) Various forms of abnormal behavior in infancy, childhood and adolescence are examined, within the context of traditional and contemporary psychological theory. Problems of differential diagnosis and forms of remediation are discussed.

## DEP 4464 Psychology of Aging

An examination of the factors which contribute to the psychological profile characterizing old age. Biological and sociological components are
considered, and their impact on perceptual, cognitive, and personality processes is analyzed.

## DEP 4704C Developmental Psychology: <br> Lecture (2) and Laboratory (3) (5)

Laboratory / observation exercises illustrative of the concepts and research techniques used in developmental psychology. Particular emphasis is given to cognitive and social-cognitive development. This course is for seniors who have completed PSY 3043C and one developmental psychology course.

## DEP 5145 Culture and Childhood

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
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

Studies different approaches to the modification of problem behavior, through the application of learning principles and theories.

## EAB 5655 Advanced Methods of Behavior Change

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 program; equivalent background; or permission of instructor.

## EDP 3004 Introductory Educational Psychology

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.

## EDP 6935 Special Topics in Educational Psychology <br> (VAR)

An intensive analysis of a particular topic in education psychology. Students must have topics approved by the instructor prior to registration. Open only to advanced and graduate students in the School of Education.
EXP 3304 Motivation and Emotion
Introduces several perspectives from learning theory, perception, and personality theory to explore ways in which people move through their physical and social environment.

## EXP 3523 Memory and Memory Improvement

This introduction to human memory considers the topics 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. (Formerly listed as PSB 3523C.)
EXP 3652 Psychology of Creativity
An exploration of the psychological processes involved in the act of creation. Several approaches to the understanding of creators and their creations are used, including the study of eminent creative people, and sessions with persons involved in creative efforts. A survey of scientific studies of creation, and personal involvement and introspection by the student.
EXP 4204 Sensation and Perception (3)

Basic concepts in senation 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 4214C Human Perception: Lecture and Laboratory

Lectures concern the methods researchers use to learn about the phenomena of sensation and perception. Laboratory exercises allow students to apply these methods and to experience the perceptual phenomena under investigation. Prerequisites: PSY 3043, STA 3122.

## EXP 4404C Human Learning and Remembering: Lecture (2) and Laboratory (3)

Lectures on the research and theoretical contributions to the understanding of human learning and remembering; and laboratory exercises iflustrative of the concepts and techniques used in conducting experimental studies of human learning and remembering. Prerequisite: Advanced General Psychology with Laboratory (PSY 3043C).

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EXP 4605 Cognitive Processes
(3) 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 (3) 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: Lecture and Laboratory

Lecture and laboratory course investigating experimental research in the fundamental processes of human behavior. Includes perceptual, cognitive, and linguistic processes. Prerequisites: PSY 3043C, STA 3122 and STA 3123.

EXP 5406 Theories of Learning
The major theoretical systems of learning are covered, with the intent of determining how well each accounts for the phenomena of learning. Emphasis is placed on exploring the controversial issues raised by extant theories, and the experimental resolution of these theoretical controversies. The impact of theory on current thinking about learning is considered.

INP 3002 Introductory Industrial / Organizational Psychology Introduction to the study of behavior in the work environment. Illustrative topics included 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 (3)

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 Intsoductory Industrial / Organizational Psychology, or Personnel Psychology, or Personnel Management, are recommended.

## INP 4203 Personnel Psychology

(3)

Techniques and procedures applicable to the selection, placement, utilization, and evaluation of personnel in organizations are considered. The emphasis will be on empirical procedures,
rather than the management function in the personnel area. Topics such as quantitive methods and models for selection, criteria analysis, performance appraisal, management training, and job satisfaction are discussed. Prior course in statistics strongly recommended.

INP 6940 Strategies and Methods of Applied Psychological Research
(3)

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 nonexperimental designs; obtrusive and unobtrusive measures; mathematical and logical tools for analysis of results; computer applications in data collection and analysis, and ethical considerations in research on human populations. Prerequisites: STA 5206 and STA 5707.
LIN 4701 Psychology of Language
An overview of the psychology of language and the psychological "reality" of linguistic structure. Behavioristic vs. cognitive views of psycholinguistics are examined. Consideration is given to the biological bases of language and thought, language acquisition, and language pathology.
LIN 4710 Language Acquisition
An examination of the way children acquire language, based on experimental findings from contemporary linguistic, psycholinguistics and behavioral theory.

PPE 3003 Theories of Personality
An examination of various theories of personality. Consideration is given to traditional and contemporary approaches to personality development.

## PPE 3502 Psychology of Consciousness

Normal and altered states of human consciousness are analyzed from the perceptual and neuropsychological viewpoint. Broad topic areas include physiologically determined levels of arousal, from deep sleep to intense excitement; selective attention; perceptual plasticity; illusions; sensory depriviation; biofeedback; psychosomatic disease; hypnotism and suggestibility; as well as a critical treatment of the phenomena of parapsychology.

## PPE 4105 Humanistic Psychology

Studies the methodology, research and findings of the humanistic orientation in psychology. Topics such as counseling, encounter groups, higher consciousness, biofeedback, intentional communities, education, mysticism and religion are examined from the humanistic viewpoint. Prerequisite: Prior completion of a course in Theories of Personality is recommended.
PPE 4123 Nonverbal Behavior (3)

An overview of theory and research relating to
nonverbal channels of communication, including eye-contact, personal space, territoriality, touching, facial gestures, body language, and vocal cues.

PPE 4325C Differential Psychology: Lecture (2) and Laboratory (3)
(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
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 Psychological Testing
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)
Special topics will be announced in advance.
PSB 4003 Introductory Bio-Psychology
A study of the more important psychobiologic correlates of behavior in basic psychological phenomena. Open only to majors in the senior year or otherwise qualified students.

## PSY 3013 Introductory Psychology

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 nonmajors and is a prerequisite for majors who have not had an introductory course in psychology.
PSY 3043C Advanced General Psychology with Laboratory: Lecture (2) and Laboratory (3)
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 class-
(Continued)

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room experience, students participate in laboratory exercises designed to illustrate concepts covered in lectures. The laboratory exercises provides 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. Prerequisite: STA 3122.

PSY 4693C Overview of Psychology
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: 12 semester 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) Special topics will be announced in advance.

PSY 4931 Senior Seminar in Psychology
An advanced seminar for seniors. Analysis of major contemporary trends in psychological theory and research.

## PSY 4941 Independent Field Experiences

 in Psychology(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 ResearchReviews the Analysis of Variance, and introduces the student to randomized and blocking designs, factorial designs, fractional factorial, main effects and other plans as they are used in psychological research. Main emphasis is on the rationale behind the several designs, and the techniques for applying these to psychological experiments. Prerequisites: STA 3122 and 3123 , or their equivalents.
PSY 5246C Multivariate Analysis in Applied
Psychological Research

Covers basic techniques of multivariate analysis, emphasizing the rationale and applications to psychological research. Includes multiple regression, Hotellings $T^{2}$, MANOVA, principle component analysis and factor analysis. Prerequisite: STA 3123 or equivalent; linear algebra recommended.
PSY 5908 Directed Individual Study
(VAR)
Under the supervision of an instructor in the graduate degree program, the graduate student delves individually into a topic of mutual interest which requires intensive and profound analysis and which is not available in a formal offering. May be repeated once. Prerequisite: Permission of instructor.
PSY 5939 Special Topics in Psychology (VAR) Special topics will be announced in advance.
PSY 6971 Master's Project in Psychology (VAR) 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.

SOP 3004 Introductory Social Psychology (3) Introduction to the study of the relationship of the individual to social systems, including topics such as social behavior, attitude development and change, social conflict, group processes, mass phenomena, and communication.
SOP 3724 Psychology of Racism
Consideration is given to the nature and development of institutional racism in America. The historical, social, economic and psychological aspects of racism are examined.

## SOP 3742 Psychology of Women

An examination of women from various perspectives, such as biological, anthropological, mythological, religious, historical, legal, sociological, and psycho-analytical points of view. Discussions of ways in which these various perspectives influence the psychological development of contemporary women.

SOP 3772 Psychology of Sexual Behavior (3) 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
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
Theories, research data, and community applications of prosocial activities, such as giving, helping, volunteering and altruism.

## SOP 3932 Psychology of Drugs and

 Drug AbuseThis 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 4050 Social Psychology in Latin America
Upper division seminar on Social Psychology in Latin America. The course will provide the student with the opportunity to survey the literature and research in social psychology from different countries in Latin America and to compare that material with ongoing research and literature-in the United States. Prerequisites: SOP 3004 and reading knowledge of Spanish.

## SOP 4015 Social and Personality Development

This course provides a survey of social and personality development throughout the life cycle. Emphasis will be placed on the interaction between psychological and environmental variables on life-span development changes.
SOP 4215C Experimental Social Psychology: Lecture (2) and Laboratory (3) (5) 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, group structure and communication, etc.

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## SOP 4444 Attitudes and Ethnicity: A Cross-Cultural Psychological Approach

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
Research methods and findings on the topic of interpersonal interaction in face-to-face situations. Emphasis on content of research methods and findings, rather than in-class experiences.

## SOP 4513 Psychology of Conflict

This course examines the psychological factors involved in conflict situations. The focus is on intrapersonal, interpersonal and intergroup conflict resolutions, and the applicability of such resolutions to various conflict conditions. These may include racial or religious conflicts, and even international wars. The course also considers the ultimate disintegration of the individual personality as a result of internalized conflict, and attempts to familiarize students with the psychological factors underlying varing conditions of conflict and resolution.

## SOP 4522 Social Motivation

Focuses upon those sources of human motivation which are a consequence of man's socialinterpresonal environment and his striving to obtain 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

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 4645 Consumer Psychology

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
Using the interactional workshop and objective observational methods, students will be required to conduct original research projects related to solving consumer affairs problems.

Laboratory requirements include both on and off-campus work. The former emphasizes techniques and evaluation. The latter is necessary for the gathering of data.

SOP 4705 Psychology of Social Change
An examination of methods of implementing institutional change. Consideration is given to alternatives such as violent vs. non-violent confrontation, and the use of information as an instrument of change.

## SOP 4712 Environmental Psychology

An introduction to the man-eavironment interaction, including psychological, sociological and physical aspects.

## SOP 4714C Environment and Behavior

Students gain experience with laboratory and field techniques used in the study of the reciprocal relationship between the physical environment and human behavior. PSY 3043 or permission of instructor is prerequisite for enrollment.

SOP 4715 Psychological Influence of Culture
on Leaming and Thinking

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

A study of the psychological, especially social, factors in the dynamics of international behavior interactions, which may increase or decrease tensions and conflicts.
SOP 4834 Psychology of Health and Illness (3) Course provides an overview of the field of behavioral medicine, the interface of psychology with health and health care. Psychological factors in illness, health, and health delivery systems will be covered. Prevention and early intervention will be stressed.

## SOP 4842 Legal Psychology

Particular emphasis will be given to interpersonal courtroom processes. Topics considered included scientific jury selection, proxemics, persuasive argumentation, witness demeanor, eyewitness testimony, and similar influences upon juror decision making. Prerequisite: None.

## SOP 5058 Advanced Social Psychology

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.

SOP 5616 Social Psychology of Organizations
The application of concepts and theories from social psychology and sociology to the organizational setting. Emphasis would be 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 will be covered. Communication processes and networks and their effects on task accomplishment and satisfaction will be included.

SOP 5765 Psychology of Community Development
An in-depth study of the psychological aspects of community development and related intervention strategies. Emphasis is placed on variables which show consistent relationships across levels of analysis.

## SPA 8401 Disorders of Language in Childhood

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 development psychology.

## Sociology Major

Sociology is part of the Department of Sociology and Anthropology and all information should be obtained from that Department's office.
LOCATION: Tamiami Campus
DEGREE: Bachelor of Arts

## MAF 3210 Marriage and the Family

An introduction to the intensive study of the kinship relationship of man known as the family. The family is distinguished from other social units, and behavior variations of this special unit are analyzed and associated with special functions. Contemporary manifestations of the family and the dynamic changes indicated are considered.

## MAF 4510 Comparative Family Systems

The study of family organization and function in selected major world cultures. Emphasis is given to the inter-relationships of the family, the economic system, urbanization, and human development.
MAF 4511 Studies in Comparative Lifestyles (3) A problem-oriented course emphasizing the differential behavior associated with categories

## Sociology

such as nationalism, social class, income distribution, and political or religious affiliation.
SOC 3001 The Basic ldeas of Sociology
The course introduces the student to the ideas of community, authority, status, alienation, and the sacred, as used in sociological literature.
SOC 3020 Social Problems
An introduction to the concept of a social problem and the approaches used to understand more fully the total dimensions of some specific problems. Special emphasis is given to clarifying one's understanding of the underlying nature of selected social problems, an analysis of those aspects amenable to remedy, and an inventory of the knowledge and skills available.
SOC 3110 Social Deviancy
(Deviant Behavior)
The study of behavior that counters the culturally accepted norms or regularities. The social implications of deviancy are reviewed, and theoretical formulations regarding deviant behavior are analyzed.
SOC 3130 Delinquency
An analysis of behavior which is extra-legal, with major concentration on its appearance among young people (juveniles) and society's response. Particular emphasis is given to the dynamic thrusts being made in establishing juvenile rights as a distinct part of human or civil rights.

## SOC 3150 Criminology

An introduction to the study of criminal behavior, its evidence in society, society's reaction to the subjects involved, and the current state of theoretical thought on causality and treatment.
SOC 3281 School and Society
A specialized course dealing with the place of schools (particularly public) in society, the import of social criteria for school personnel, and the influence of such criteria on educational processes within the school system (institution).

## SOC 3300 The Community

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 3402 Social Change

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 3500 Research Methods
An introduction to the scientific methods and its application to anthropological and
sociological research. Topics include: formulation of research problems; research design; field methods and collection of data; hypothesis testing and interpretation of results.
SOC 3610 Sociological Theories
Examines the emergence of sociology as the study of social relations. Compares and contrasts the work of selected theorists, with respect to their methodologies, treatment of the emergence and consequences of modern society, political sociology, conception of social class, and analysis of the role of religion in society. The student is expected to gain in-depth knowledge of opposing theories, as well as an appreciation of the contingent nature of sociological theories.

## SOC 3820 Small Groups

Survey of small group studies, their development and the associated theoretical schools of thought. The significance of small group studies for social theory is evaluated.
SOC 3830 The Individual in Society
Introduction to the study of the individual as a social being, with particular emphasis on man's social origins, human perceptions, and the interaction of the individual and the group within society.

## SOC 3850 Collective Behavior

The study of human behavior as found in relatively unstructured forms, such as crowds, riots, revivals, public opinion, social movements and fads. The interplay of such behavior and the rise of new norms and values is analyzed.

## SOC 3949 Cooperative Education in Social Sclences

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

## SOC 4003 Sociology of the 20th Century

An examination of the sociological implications evident in the events of our modern world. Heavy reliance is placed on intellectual materials other than social science, especially literature.
SOC 4004 Sociology Through Film
Popular and documentary films as data for the analysis of various sociological problems.
SOC 4211 Sociology of Religion and Cults (3) The study of religions 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 4221 Political Sociology (3)

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 4243 Sociology of Death
An introduction to "death" as social phenomenon. Attention given to various approaches which systematically study death, with primary emphasis given to the sociological approach. Major attention is given to an exploration of attitudes toward death, and an assessment of the implications for the respective groups involved.
SOC 4265 Man, Society and Technology
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 4301 Community Organization

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
(3)

Study of the urban community, with particular attention to the problems associated with urban life. The development of urban societies is reviewed historically, and factors associated with this development are identified.

## SOC 4331 Latin American and Caribbean

 Social StructuresExploration 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
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.

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 4440 Social Conflict

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 4464 Sociology of the Underprivileged Societies
An examination of the various theories concerning what is happening in the "underdeveloped world." The political, social, and economic events of these societies are subjected to sociological analysis.
SOC 4475 Seminar in Ethnicity
An upper-level seminar, stressing a comparative sociological approach to the study of two or more racial-ethnic groups. Emphasis on the 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 4490 Area Studies: Social Structures and Problems
Special courses on the social structures and related problems of specific geographical and cultural areas. To be offered at various times.
SOC 4504 Basic Research Design
Advanced course in social research, providing research practicum for studying patterns of human behavior; analyzing findings of studies, methodical and analytical procedures; reporting and explaining these results; and applying these inferences to concrete situations. Also acquaints the student with the use of computers in research in the behavioral sciences.

## SOC 4540 Historical Sociology

The authenticity and meaning of historical data for sociological research. Systematic theories in history are analyzed for their utility in sociology. Particular emphasis on the sociological uses of the comparative method in history.
SOC 4611 Advanced Social Theory
An analysis of various classical and current sociological theories, with particular attention paid to their conceptions of man in society and the wider implications such conceptions have. The theories of Durkheim, Parsons, Weber, Goffman, Bendix and Dahrendorf are examined.

## SOC 4613 Social Theory and Third World Innovations

An examination of the contributions to social theory by intellectuals of the Third World. Particular attention is paid to theory derived from classical Marxism.

SOC 4620 Comparative Sociology
A cross-cultural and cross-national survey of sociological studies, with particular emphasis on theoretical and methodological issues. Examples will be drawn from studies on culture patterns, social structures, sexual mores, power relationships and the ethical implications of cross-national research.
SOC 4651 Sociology of Art and Literature
This course approaches the question of art and society through an analysis of: the social production of art; the relationship between imagination and society; the role of the artist; and the ideological impact of aesthetic theory. (Course number change; addition of course description. Although listed in the catalog, this course was not included in the College brochure.)

## SOC 4705 The Role of Women in Contemporary Society

A concentrated study of women in society, addressing role origins and their development in contemporary society. Particular attention given to how such behaviors become normalized and the rapidity with which they change.

## SOC 4745 Minorities/Race and Ethnic Relations

The study of social groups identified by racial or ethnic characteristics. Particular emphasis is given to the role of minorities in society, and the interactive process resulting from their contact with the majority. Social behaviors of minorities are reviewed and related to institutional structures and their accepted norms.
SOC 4746 Social Conflict in Multi-Ethnic Societies
Cases are selected from a variety of societies with differing types of majority-minority situations. Prejudice and discrimination are seen as weapons in group and class conflict. The consequences of prejudice are analyzed in terms of the costs to every group in the society.

## SOC 4829 Ethnomethodology

The analysis of practical, everyday actions and circumstances as a means of reaching a logical and common sense knowledge of social structures.

SOC 4833 Role Theory
An analysis of the relation between man and society, from the perspectives of role theory. The course explores the effect society has on individual biography and action.

SOC 4835 Clinical Sociology
The problems of alienation, anomie, and happiness will be analyzed. A third position between social work and social change will be sought. Personal adjustment, social revolution, and individual calculation will be weighed as responses to the demands of social life.

SOC 4841 Mass Culture
Analysis of the social, political and cultural impact of mass communications.

SOC 4842 Symbols and Society
An analysis of the effect of culture on the individual and on society. The roles of popular and intellectual culture will be examined.
SOC 4905 Directed Individual Study (VAR) Supervised readings and/or field research and training. May be repeated.
SOC 4941 Directed Field Research
(VAR)
Permission of instructor required.
SOC 4949 Cooperative Education in Social Sciences
A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend one or two semesters 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
An examination of the role of law and of legal institutions in American society. Included are such topics as the use and/or misuse of the legal process for conflict resolution and as agents of social change.
SOC 5255 Sociology of Mental Health
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
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
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 precipated within different societies and their varied economic and political systems.
SOC 5284 Sociology of Education
An analysis of education as a social process and the interrelationship of educational systems and

## Visual Arts Major

society. The study of education as a socialization process; the social structure of education, and its role as an agent in social change.
SOC 5656 Sociology of Knowledge
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 3303 Ethical Issues in Social Science Research

(3)

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
Ralph F. Buckley, Associate Professor
William Burke, Associate Professor
James M. Couper III, Associate Professor
Ellen Jacobs, Associate Professor
Richard Duncan, Assistant Professor Barbara Forbes, Assistant Professor
William Maguire, Assistant Professor Dahlia Morgan, Lecturer / Gallery Director
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, scultpure, 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 60 semester hours to complete the bachelor's degree, or to make up courses at the lower division level.

## UPPER DIVISION PROGRAM:

Semester Hours

## Required Courses:

39
ARH 4450 20th Century Art 3
ARH 4470 Contemporary Art 3
Art History Elective 3
Studio Major 15-18
ART 4955 Thesis and Portfolio 3
Studio Electives
outside of major $\quad 12-21$
Electives outside of Visual Arts Department

12-21
60
Remarks: A grade of " C " or better in all courses required for the major is necessary for graduation.

| MINOR IN VISUAL ARTS |  |  |
| :---: | :---: | :---: |
| ARH 4450 | 20th Century Art | 3 |
| ART 3310 | Drawing OR |  |
| ART 3331 | Figure Drawing | 3 |
| ART Electives in Studio |  | 12 |
|  |  | 18 |
| MINOR IN ART HISTORY |  |  |
| ARH 4450 | 20th Century Art | 3 |
| ARH 4470 | Contemporary Art | 3 |
| ART Studio | Elective | 3 |
| ARH | Electives | 9 |
|  |  | 18 |

## Course Descriptions

## Definition of Prefixes

ARH - Art History; ART - Art; HUM Humanities.

## ARH 3009 Survey of Contemporary Art

A survey of the most recent developments in the fields of visual arts and architecture, through lectures, films and speakers. Open to all students.

## ARH 4131 Greek Art

Lectures, slides, research. The Art of Greece from the Bronze Age through the Classical Period.

## ARH 4151 Roman Art

Lectures, slides, research. The Art of Ancient Rome from the Early Iron Age through the Late Roman Empire.

## ARH 4310 Early Italian Renaissance

Lectures, slides, research. From the origins of ltalian Renaissance in the Late Gothic Period to the Early l5th Century.

## ARH 4312 Later Italian Renaissance

Lectures, slides, research. The Art of Italy in the later 15th and 16th Century.

## ARH 4431 19th Century Painting

A study of the various challenges offered artists at the beginning of the nineteenth century, and of subsequent solutions created by painters in


America, England, France, Germany and Italy. Styles such an neo-classicism, romanticism, realism, eroticism, pre-raphealiticism, Iuminism and impressionism will be examined.
ARH 4450 20th Century Art
Lectures, films, sfides. A survey of European and American Art from 1890-1945.

## ARH 4470 Contemporary Art

Lectures, slides, visitors and student research. A survey of art from 1945 to the present.
ARH 4552 Art of China and Japan
An introduction to the art of China to the Ming Dynasty and of Japan through the 18th century. The emphasis will be on painting and scultpure, with some ceramics and architecture.

ARH 4610 American Art
Lectures, slides, visitors and student research.

## ARH 4650 Pre-Columbian Art

Slides, lectures, research. A survey of PreColumbian Art from approximately 2000 B.C. to 1500 A.D. of Mesoamerica. (Intermediate area from Honduras to Columbia and the Andes).
ARH 4670 20th Century Latin American Art (3) Lectures, films, slides. The Art of Central, South America and the Caribbean of the Twentieth Century.
ARH 4710 History of Photography
A chronological look at the tradition of the richly descriptive still photograph, from its invention in the 1830 's. Sources include science, photojournalism and work of artists who photograph.

## 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, scuitpure, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a semester before course is offered. May be repeated.

## ARH 4910 Research

(VAR) 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).

# Visual Arts Major 

## ARH 4930 History of Decorative Arts

A survey of the more important and influential periods in history in the production of ceramics, fabrics, glass, jewelry and silversmithing. Slides, lectures, student research.

ARH 4931 Women and Art
Women in the history of art; past, present and future. Slides, lectures, films, panels and discussions.

ARH 5907 Directed Studies
(VAR)
See ARH 4905.
ARH 5913 Research
(VAR)
See ARH 4910.
ART 3111C Ceramics
(3)

A beginning course for art and non-art majors. Fundamentals of throwing, hand-buliding, and glaze application. May be repeated.

ART 3133C Fabrics and Fibers
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 3150C Jewelry and Metals

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 3163C Glassblowing
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 3310C Drawing
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 3331C Figure Drawing
Drawing from the model during assigned studio time. Open to all students. May be repeated.

## ART 3401C Printmaking

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 3510C Painting

A study of the student's work through the use of visual aids and individual criticism. Any media may be used. May be repeated.

ART 3601C Photography
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 3702C Sculpture

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 3949C Cooperative Education in Visual Arts
A student majoring in Visual Arts may spend several quarters fully employed in industry in a capacity relating to the major. Must have permission of chairperson.

## ART 4114C Ceramics

The advanced student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisite: ART 3111C, or permission of the instructor. May be repeated.
ART 4116C Glaze and Clay Calculation (3)
The study of the nature, formulation and altering of ceramic glazes and clays.

ART 4133C Fabrics and Fibers
See ART 3133C.
ART 4151C Jewelry and Metals
See ART 3150C.
ART 4164C Glassblowing
See ART 3163C.
ART 4320C Drawing
See ART 3310C.
ART 4332C Figure Drawing
See ART 3331C.
ART 4402C Printmaking
See ART 3401C.
ART 4532C Painting
See ART 3510C.
ART 4604C Photography
See ART 3601C.
ART 4703C Sculpture
See ART 3702C.
ART 4710C Figure Scultpure
To develop skills in representational structure and anatomy from the model and learn moldmaking techniques. May be repeated.

ART 4906C Directed Study
(VAR)
A group of students, with the approval of the Visual Arts 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.


#### Abstract

ART 4910C Research (VAR)


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.
AR'T 4949C Cooperative Education in Visual Arts
See ART 3949C.
ART 4955C Thesis and Portfolio
Studio work in students major area with major professor, resulting in a student exhibit. Arrangements with major professor one semester before graduation. Written thesis required. Prerequisite: 15 semester hours of studio major.
ART 5125C Ceramics(VAR)
See ART 4114C.
ART 5133C Fabrics and Fibers ..... (VAR)
See ART 3133C.
ART 5159C Jewelry and Metals ..... (VAR)
See ART 3150C.
ART 5165C Glassblowing ..... (VAR)
See ART 3163C.(VAR)ART 5340C DrawingSee ART 3310C.
ART 5341C Figure Drawing ..... (VAR)
See ART 3331C.
ART 5403C Printmaking ..... (VAR)
See ART 3401C.
ART 5580C Painting ..... (VAR)
See ART 3510C.
ART 5620C Photography ..... (VAR)
See ART 3601C.
ART 5710C Figure Sculpture ..... (VAR)See ART 4710C.
ART 5730C Sculpture ..... (VAR)
See ART 3702C.(VAR)
See ART 4906C.
ART 5910C Research ..... (VAR)
See ART 4910C.

## Consumer Affairs

## American Studies Certificate Program

Director: Joyce Shaw Peterson, (History). Coordinating Committee: Darden Pyron (History), Don Watson (English), Eric Leed (History), Lynn Berk (English), Howard Rock (History), Tucker Arnold (English).
LOCATION: Tamiami and Bay Vista Campuses
The American Studies Certificate Program provides the opportunity for students to examine the nature of American civilization through an interdisciplinary study of American history, literature, culture, and thought. The program provides a grounding in American literature and American history, a sampling of how each discipline approaches the study of American civilization, and an opportunity to sample the approaches of political science, anthropology, philosophy and religion. Through a seminar in American studies students will apply the insights of the various disciplines to problems of their own choosing.

The Certificate in American Studies is awarded with a bachelor's degree or, upon completion of Certificate requirements, to a student who already possesses that degree.

General Requirements: A total of 7 courses chosen among the prescribed certification courses with a grade of "C" or better.

Specific Requirements:
AML 3104 Survey of American Literature I
AML 3109 Survey of American Literature II
2 consecutive semesters chosen from the following:

AMH 3012 American History 1600-1763
AMH 3013 American History 1763-1877
AMH 3020 American History 1877-present
2 electives chosen from the following:
POT 4204 American Political Thought
ANT 3402 Anthropology of Contemporary Society
PHH 3700 American Philosophy
REL 3100 Religion and Culture An appropriate American literature course

An appropriate American history course HIS 4480/LIT 4480 Seminar in American Studies

## Consumer Affairs Certificate Program

Director: Milton L. Blum (Psychology)
Coordinating Committee: Myrna Crabtree (Home Economics Education), Dennis Marzella (Hospitality Management), Betty Morrow(Home Economics), Samuel Shapiro (Mathematical Sciences).
LOCATION: Tamiami 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 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 6-7 courses from the courses listed in the Ceritificate 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 semester.

## 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: The Following are the required courses.

## SOP 4645 Consumer Psychology

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(5)

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

## COA 3410 Consumer Resources

Evaluation of information needed by consumers to make wise spending decisions, including sources of consumer help, information and protection. Experiences in product comparison provided.
COA 4460 Consumer and Technology
Study of the inter-relationship 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.
ELECTIVE COURSES: The remaining hours 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

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

For non-science majors. An introduction to the fundamental principles and concepts of ecology; and to air pollution and water resources.
EVR 3012 Environmental Science II
For non-science majors. An introduction to energy resources and conservation; agricultural pollution; noise pollution; and solid waste problems.
FOS 3004 Food and the Consumer
Survey of nutrition information relating to problems and issues of concern to today's consumers.

## HUN 3122 Nutrition and Culture

Nutrients and their interrelationships, in reference to food habits and needs of various population groups. Introduction to the impact of culture on nutrition, and study of personal food pattern development.

## MAR 4503 Consumer Behavior

The consumer as the basis for development of marketing programs by business organizations.
PHI 4631 Ethical Issues in Business
Ethical dimensions of current problems and issues facing the worker or business manager.

# Certificate Programs Environmental Studies 

PUP 4203 Environmental Politics and Policy Steps in the environmental policy-making process whereby private preferences are transformed into public policy.
COA 4440 Consumer Counseling Application of consumer and management knowledge and skills in financial decision making. Case study approach. Prerequisites: COA 3410, HME 4210, and permission of instructor.
COA 5450 Consumer Legislation
Presentation of scope, enforcement and problems related to consumer law at the local, state and federal levels.

## PSY 4941 Independent Field Experience in

Psychology
(VAR)

## Environmental Studies Certificate Program

Director: G. Dalrymple (Biological Sciences) Coordinating Committee: J. Brown (Sociology / Anthropology), J. Gottlieb (Political Science), J. Huchingson(Philosophy and Religion), J. Parker (Physical Sciences).

## LOCATION: Tamiami Campus

The certification program in Environmental Studies is designed to provide students in various majors with the unique perspective of interdisciplinary ecological education to both enrich and expand the breadth of their primary training. The certificate seeks to provide participants with an analytic basis for understanding the milieu of local and global environmental problems and processes. The curriculum requires no prerequisite and is complementary to majors in all disciplines and schools at FIU.

## Required Courses:

1. Environmental Science 3010,3011 , and 3013OR Air Resources (EVR 4231), Water Resources (EVR 4211), and Energy Resources (EVR 4311).
2. Environmental Politics and Policies (PUP 4203).
3. Two Electives from the following, at least one of which must be from the Social Sciences or Humanities:
ECP 3303 Environmental
Economics
SOP 4712 Environmental Psychology
ANT $3403 \quad$ Cultural Ecology
REL 4440 Man and Nature
PCB 3033 Fundamentals of Ecology
PCB 4320 Terrestrial Ecology
EVR 3013 Ecology of South Florida
EVS 3420
GEO 3510
ANT 4031

| INR 4054 | World Resources, World <br>  <br> Order |
| :--- | :--- |
| INR 3043 | Population and Society |

## 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).
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 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 6 courses with a grade " 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 1 course in a relevant language will be accepted.
4. A maximum of 2 courses 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 3 courses towards the Certificate.

## Specific Requirements:

1. A core of a minimum of two to three courses in a theoretical and conceptual nature in the area of ethnic studies

2. A minimum of three to four specialized courses in one ol 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; 1NR - 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

# Certificate Programs Latin American and Caribbean Studies 

Specialized Courses in Black Studies:<br>AMLL 5212 Major American Literary Figures<br>ANT 4315 Afro-American Anthropology<br>ANT 4352 Area Studies<br>LIT 4203 Regional Literature in English<br>LIT 4930 Special Topics<br>MUH 3116 Evolution of Jazz<br>SOC 4746 Social Conflict in Multi-Ethnic Societies<br>Specialized Courses in Jewish Studies:<br>GEA 3630 Population and Geography of the Middle East<br>INR 3274 International Relations of the Middle East<br>POS 4147 Political Urban Jewish Leadership<br>REL 3224 The Prophets

## Latin American and Caribbean Studies

## Latin American and Caribbean Studies Certificate Program

Director: Mark B. Rosenberg (Political Science)
Associate Director: Mark D. Szuchman(History)
Advisory Council: Judson DeCew (Political Science), John Jensen(Modern Languages), William Leffland (International Affairs Center), Barry Levine (Sociology / Anthropology), Anthony Maingot (Sociology / Anthropology), James Mau (Sociology / Anthropology), Jorge Salazar(Economics), William Vickers (Sociology / Anthropology). Mayda Watson(Modern Languages), Ewart Archer (International Relations), Marian Goslinga (Library).
LOCATON: Tamiami (DM 212) and Bay Vista Latin American and Caribbean Studies at Florida International University represents one way in which the university fulfills its commitment to furthering international understanding. The program in Latin American and Caribbean Studies encourages students to take an interdisciplinary approach to this important area by awarding a Certificate to both degree and nondegree students who successfully complete the Certificate requirements (see below). For students pursuing a bachelor's degree, the Certificate Program should be understood as a complement to the student's regular major area or discipline of study. For non-degree students, the Certificate represents the way in which a fuller, more complete understanding of Latin America and the Caribbean can be gained without pursuing a full course of study at the university.

Students who are interested in the Certificate Program should consult directly with either the Director or the Associate Director of the Latin American and Caribbean Center, which administers the program.

In addition to its Certificate administration responsibilities, the Latin American and Caribbean Center, in consortium with the Center for Latin American Studies of the University of Florida, is one of twelve federally recognized and supported Latin American and Caribbean Area Studies Centers in the United States. The Center sponsors and coordinates a wide range of activities to promote both student and community awareness and study of the Americas, including lectures and seminars on such varied topics as the historical and ideological aspects of Caribbean society, the role of the opposition in Latin America, Peronism, human rights, migration and U.S. foreign policy in the Americas.

The Latin American and Caribbean Center also promotes and supports faculty research on Latin America and the Caribbean. During the past two years, area studies faculty have conducted research in Argentina, Barbados, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Honduras, Guatemala, Jamaica, Mexico, Peru, Trinidad and Venezuela with Center funding.

An important component of the Latin American and Caribbean Studies Program at FIU is the Library. During the past four years, the Latin American and Caribbean acquisitions program has concentrated on establishing a sound resource base for undergraduate research and study. Holdings on the region range from primary and secondary source materials to maps, and films, and periodicals.

The Center publishes a newsletter (available upon request) which describes on-going seminars, lectures and courses offered in conjunction with the Certificate program.

## Certificate Requirements:

(Total of 18 semester hours)

1. A minimum of 9 semester hours with a grade of "C" or better in courses certified by the program.
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 18 semester hour requirement.
3. A requirement of 3 semester hours of independent study under faculty supervision during which a research paper will be written.
4. Courses must be taken from at least three different departments.
5. After fulfilling all requirements, students will participate in a colloquium with the faculty to discuss their research.
The following courses fulfill Certificate re-

quirements. These courses should be understood as a partial list; students consult with the Director of the Certificate Program about current course offerings.
ANTHROPOLOGY
ANT 3144 Prehistory of the Americas
ANT 3251 Peasant Society
ANT 3435 The Individual in Anthropology
ANT 4324 Many Mexicos
ANT 4328 Maya Civilization
ANT 4332 Latin America
ANT 4334 Comparative Latin
American Cutlures
ANT 4340 Cultures of the Caribbean
ANT 4343 Cuban Culture and the Revolution

## EARTH SCIENCES

GLY 3157 Elements of Caribbean Geology
GLY 4190 Caribbean Earth Sciences Seminar
GLY 4792 Caribbean Mineral Resources Field Trip
GLY 5620 Caribbean Stratigraphic Micropaleontology
GLY 5793 Caribbean Shallow-Marine Environments
ECONOMICS
ECS 3402
ECS 3440
ECS 4013
ECS 4403
ECS 4404

ECS 4430

ECS 4432
ECS 4433
ECO 4733 Multinational

Corporation
The Political Economy of South America Economics of Central America
Economic Development
The Latin American Economies Economic Integration-Latin America The Economic Development of Cuba Past and Present Economic Integration Caribbean
Economics of the Caribbean

# Certificate Programs Linguistic Studies 

## EDUCATION <br> EDF 5710

EDF 5720

EDF 5780

National Education Systems: A Comparative Analysis

National and
Intermational Perspectives

## HISTORY

LAH 3410 Mexico and the Caribbean
LAH 3482 Cuba from Bourbons to Castro
LAH 4132 The Formation of Latin America
LAH 4133 Spain in America
LAH 4201 Latin America: The 19th Century
LAH 4300 20th Century Latin America
LAH 4474 Topics in Caribbean History
LAH 4511 Order and Revolution in Argentina
LAH 4932 Topics in Latin American History
EDF 4521 Topics in Latin American History
HIS 4306 Topics in Latin American History
INTERNATIONAL BUSINESS
MAN 3602 International Business
MAN 4600 International
Management
MAN 4610 International and Comparative Industrial Relations
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 Intemational Relations of the Caribbean
INR 4247 Caribbean Regional Relations

## MODERN LANGUAGES

FRE 3500 Civilization I (Latin American course)
SPN 3500 Civilization I (Latin American course)
FRE 4501 Civilization II (Latin American course)
SPN 4501 Civilization II (Latin American course)
FRW 3520

Prose and Society (Latin
American course)

| SPW 3520 | Prose and Society (Latin American course) |
| :---: | :---: |
| FRW 3580 | Intellectual History (Latin American course) |
| SPW 3580 | Intellectual History (Latin American course) |
| POW 4390 | Special Topics (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 Lati |
|  | 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 |
| PSYCHOLOGY |  |
| SOP 4004 | Social Psychology in Latin America |
| SOCIOLOGY |  |
| SOC 4332 | Latin American and |
|  | Caribbean Social |
|  | Structures |
| SOC 4490 | Area Studies (Latin |
|  | American and/or |
|  | Caribbean) |
| SOC 4613 | Third World Theory |
| SOC 4746 | Social Conflict in Multi-Ethnic Societies |

## Linguistic Studies

 Certificate ProgramDirector: Lynn Berk (English) Coordinating Committee: Frances Aid (Modern Languages), Reinaldo Sancheringz (Modern Languages), John Jensen (Modern Languages), George Kovacs (Philosophy), and John Staczek (Secondary Education).

## LOCATON: 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 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 Certilicate 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 OR ENG 3500 English Linguistics
2. FOL 4930 Special Topics: Spanish Grammar OR ENG 4555 Modern English Grammar
3. One of the following courses:

LIN 3642 Language and Culture
LIN 4701 Psychology of Language LIN 4710 Language Acquisition LIN 5934 Special Topics: Sociolinguistics PHI 4221 Philosophy of Language PHI 4222 Philosophy of Dialogue Remaining courses for the Certificate will be selected from the following list:

## Anthropology

LIN 3642 Language and Culture
English
ENG 3500 English Linguistics
ENG 4574 Black English
LIN 4400 Applied Linguistics
ENG 4555 Modern English Grammar
ENG 5517 History of the English Language

# Certificate Programs Marine Science 

## Modern Languages

FRE 3780 Phonetics
LIN 3400 Applied Linguistics
LIN 3010 Introduction to General
Linguistics
SPN 3780 Phonetics
SPN 3840 History of the Language
FOL 3732 Romance Linguistics
SPN 4790 Contrastive Phonology
SPN 4800 Contrastive Morphology
LIN 4418 Problems in Language Learning
LIN 4620 Studies in Bilingualism
Philosophy
PHI 4221 Philosophy of Language
PHI 4222 Philosophy of Dialogue
Psychology
LIN 4701 Psychology of Language
LIN 4710 Language Acquisition
SPA 5401 Disorders of Language in Childhood
Mathematics
MHF 4302 Mathematical Logic

## Marine Science Certificate <br> Program

Director: W. M. Goldberg (Biological Sciences) Coordinating Committee: J. Makemson (Biological Sciences) P. McLaughlin (Biological Sciences) F. Maurrassee (Physical Sciences) J. Sheldon(Physical Sciences) A. Thorhaug (Biological Sciences) M. Tracey (Biological Sciences)
LOCATION: Tamiami Campus Only
The Marine Science Program is designed to meet the needs of students whose general interests are geared to the natural sciences, environmental sciences or engineering. The traditional disciplines of biology, chemistry, physics and geology are reflected in the four courses required for the certificate in marine sciences. The broad background, in turn, prepares students for work in technical fields, for advanced graduate work, or for secondary school teaching. The certificate is awarded to both degree and non-degree seeking students who have successfully completed the requirements listed below.
Definition of Prefixes
EVS - Environmental Sciences; GLY - Geology; MCB - Microbiology; OCB - Biological Oceanography; OCC - Chemical Oceanography; OCE - Oceanography; ZOO - Zoology.
Certificate Requirements:
LOWER OR UPPER DIVISION
PREPARATION:
2 semesters of inorganic chemistry with laboratory; 2 semesters of biological sciences with laboratory.

UPPER DIVISION PROGRAM:*
Required Courses:
Semester Hours

| OCB 3010 | Biological <br> Oceanography <br> Biological | 3 |
| :--- | :--- | :--- |
| OCB 3010L | Oceanography Lab | 1 |
| GLY 4730 | Marine Geology | 3 |
| GLY 4730L | Marine Geology Lab | 1 |
| OCE 3014 | Physical <br> Oceanography | 3 |
| OCC 3002 | Chemical |  |
| OCC 3002L | Oceanography <br> Chemical | 3 |
|  | Oceanography Lab | 1 |

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Plus one of the Following Electives: MCB 4733+L Marine

|  | Microbiology | $3+1$ |
| :---: | :---: | :---: |
| GLY 5793 | Caribbean |  |
|  | Shallow-Marine |  |
|  | Environments | 3 |
| ZOO 3253+L | Marine Invertebrate |  |
|  | Zoology | $3+1$ |
| OCB 5635+L | Coral Reef Ecology | $3+1$ |
| ZOO 5625+L | Biology of |  |
|  | Crustaceans | $3+$ |

*All required courses require a grade of "C" or better.

## Western Social and Political Thought Certificate Program

## Director: Brian Nelson (Political Science)

 Coordinating Committee: Charles Elkins (English), Steven Fjellman (Anthropology / Sociology), Bruce Hauptli (Philosophy / Religion), Antonio Jorge (International Relations), Eric Leed (History), Barry Levine (Sociology).LOCATION: Tamiami Campus Only.
The certificate program provides interested students with a broad background in the history of western social and political thought. As such, the certificate student will be expected to take courses from a variety of disciplines and at least three tutorials. Each tutorial will concentrate on one prescribed book which will be the same for all students. At the beginning and end of each semester the students will meet as a group with the instructors in the program to discuss the different perspectives which they have developed on the common subject matter.
Course Requirements:
A total of 5 courses in prescribed certificate courses and three tutorials with a grade of $C$ or better:

1. 4 courses in three historical eras (Ancient-Medieval, Modern, and Contemporary) from at least three different depart-

ments (Economics, English, History, Philosophy / Religion, Political Science, Sociology / Anthropology).
2. IDS 4920, Liberal Studies Colloquium on "Visions of Order and Revolt." (Under exceptional circumstances another course may be subsituted with the advisors approval).
3. Three independent study tutorials taken in three blocs.

## Admission to the Program:

Admission to the program will be by invitation from a member of the certificate faculty, or by request from the student. In either case, final approval for admission rests with the coordinating committee of the certificate program. GPA, intellectual interests, and academic potential will be the criteria considered for admission to the program.
Advising
The student's advisor will be the designated certificate representative in his or her major. It is the function of the certificate advisor to aid students in the selection of relevant courses, to insure that all certificate requirements have been completed before graduation, and to assign the tutorial grades. Students who are majoring in a discipline other than those listed will be advised by the director or the certificate program or, by mutual agreement, by another advisor of the students choice. Students are responsible for contacting their advisor on the progress of their course work and other matters related to completion of certificate requirements.

## Course Listing:

The following list may be modified from time to time. The student should consult with his or her advisor about current course offerings.
Ancient-Medieval
EUH 3420 Greece and Rome
HIS 3001 Introduction to History
HUM 3225 The Ancient World
LIT 4401 Literature Among the Arts and Sciences**
PHH 3100 Ancient Philosophy

# Certificate Programs Women's Studies 

PHH 3200 Medieval Philosophy PHI 3401 Social and Political Philosophy* PHM 4400 Philosophy of Law*
POT 3013 Ancient and Medieval Political Theory
POT 4930 Topics in Political Theory** POT 5934 Topics in Political Theory** Modern
ENL 4137 Shakespeare's Histories ENL 4138 Shakespeare's Comedies ENL 4139 Shakespeare's Tragedies EUH 3142 Renaissance and Reformation

EUH 3452 French Revolution and Enlightenment
EUH 4200 Early Modern Europe I 1500-1650
EUH 4286 Topics in European Intellectual History

LIT 3510 Themes in Literature
LIT 4401 Literature Among the Arts and Sciences**
PHI 3401 Social and Political Philosophy*
PHM 4400 Philosophy of Law*
POT 3054 Modern Political Theory I
POT 4204 American Political Thought*
POT 4930 Topics in Political Theory**
POT 5934 Topics in Political Theory**
SOC 4640 Intellectual Precursors of Sociology

## Contemporary

AMH 3331 American Intellectual History
AMH 3332 American Intellectual History
ANT 3086 Anthropological Theories
ECO 3303 The Development of Economic Thought
ECO 4307 Radical Political Economy
EUH 4286 Topics in European Intellectual History
HIS 3244 History of Communism
LIT 4401 Literature Among the Arts and Sciences**
PHI 3401 Social and Political Philosophy*
PHM 4203 Contemporary Social and Political Issues

PHM 4400 Philosophy of Law*
PHP 4510 Marxism

POT 3064 Contemporary Political Theory
POT 4055 Modern Political Theory II
POT 4302 Political Ideologies
POT 4204 American Political Thought*
POT 4930 Topics in Political Theory**
POT 5934 Topics in Political Theory**
SOC 3001 The Basic Ideas of Sociology
SOC 3610 Sociological Theories
SOC 4221 Political Sociology
SOC 4611 Advanced Social Theory
*Thematic Courses that cover more than one historical period.
**Depending on subject taught, these courses may cover one or more than one historical period. Students should consult their advisors before enrolling.

## Women's Studies Certificate Program

Director: Joyce Shaw Peterson, (History) Coordinating Committee: Mary Volcansek, (Political Science), Nancy Blaney, (Psychology), Steve Fjellman, (Sociology / Anthropology). Ann Marie Rizzo (Public Administration, Public Affairs), Sybil DeGroot, (Industrial Systems, Technology).
LOCATION: Tamiami and Bay Vista
A student may acquire the Certificate in Women's Studies by fulfilling the following requirements:
Required Core Courses:
WOH 3280 History of Women
SOP 3742 Psychology of Women
PUP 4323 Politics of Contemporary Women's Issues
Three (3) Electives from the Following:
ANT 3302 Male and Female: Sex Roles and Sexuality
AMH 3560 History of Women in the
LIT $3411 \quad$ Women and Literature
CCJ 4663 Women, Crime and the
SOW $4621 \quad$ Crises in the Lives of Women
PAD 5435 Administrator and the Role of Women,
OR
ETI 4691 Women in Industry
In any particular semester, appropriate special topics courses may be taken as electives with the approval of the Director.

## College of Arts and Sciences

Dean
James A. Mau
Associate Dean,
Budget and
Development Arthur W. Herriott
Associate Dean,
Curriculum and
Advisement
Marcelle Welch
Chairpersons:
Biological Sciences Martin Tracey
Economics
English Jorge Salazar-Carrillo

Envirhmental Studies Donald Watson
History
History Howard Kamirsky
Humanities
Chuck Elkins
International Retations Ken Boodhoo
Liberal Studies
Mathematical Sciences Samuel Shapiro
Modern Languages
John Stack, Jr.

Performing Arts Jon
Philosophy and Religion James Huchingson
Physical Sciences Howard Moore
Political Science Judson DeCew
Psychotogy
Sociology and
Anthropology
Visual Arts
Anthony Maingot
Frank Wyroba

## Faculty

Algaze, Benjamin, Ph.D. (University of South Florida), Assistant Professor, Psychology Antrim, Harry, Ph.D.(University of Florida), Associate Vice President for Academic Affairs, Professor, English
Archer, Ewart, Ph.D. (University of Texas at Austin), Assistant Professor, International Retations
Arias, Ricardo, Ph.D. (University of Paris), Professor, Philosophy and Religion
Arnold, St. George Tucker, Jr., Ph.D./Stanford University), Associate Professor, English
Barton, David, Ph.D. (University of Cambridge, United Kingdom), Associate Professor, Mathematical Sciences
Belzer, Jack, B.S.E.E. (University of Pittsburgh), Distinguished Lecturer, Mathematical Sciences
Berk, Lynn, Ph.D. (Purdue University), Associate Professor, English
Berk, Toby, Ph.D. (Purdue University), Associate Professor, Mathematical Sciences
Blaney, Nancy, Ph.D. (University of Texas), Assistant Professor, Psychology
Blum, Milton, Ph.D. (New York University). Professor, Psychology
Bone, Richard, Ph.D. (University of West Indies, Jamaica), Lecturer, Physical Sciences

## Faculty

Boodhoo, Ken, Ph.D. IUniversity of the West Indies, Jamaica), Chairperson and Associate Professor, International Relations
Brain, Carlos, Ph.D. (Hest Vîrginia University) Assistant Professor, Mathematical Sciences
Breslin, Thomas, Ph.D. (University of 1 irginia), Associate Dean, International Affairs and Assistant Professor, International Relations
Brown, Jerry, Ph.D. (Carnell University), Associate Professor, Sociology and Anthropology
Brownston, Lee, Ph.D. IUniversity of Minnesota), Assistant Professor, Psychology
Buckley, Ralph, M.F.A. (Maryland Institute), Assistant Professor, Visual Arts
Burke, William, M.F.A. (State University of Neu York at New Platz), Associate Professor, Iisual Arts
Chen, Chun-Fan, Ph.D. (University of Michigan), Associate Professor, Biolagical Sciences
Clem, Ralph, Ph.D. (Columbia University), Associate Professor, International Relations
Comfort, John C., Ph.D./Case Western Reserve University), Associate Professor, Mathematical Sciences
Couper, James, M.A. (Florida State University), Associate Professor, Visual Arts
Crosby, James, Ph.D. (Yale L'niversity), Professor, Modern Languages
Cuervo, Leon, Ph.D. (University of Maryland), Associate Professor Biological Sciences
Dalrymple, George, Ph.D. (Lniversity of Trontoj, Director of Environmental Studies and Associate Professor, Biological Sciences
DeCew, Judson, Ph.D. (University of Connecticut), Chairperson and Assistant Prafessor, Political Science
Draper, Grenville, Ph.D. (Lniversity of the Hest Indies), Assistant Professor, Physical Sciences
Duncan, Richard, M.F.A. (Southern Illinois University), Assistant Professor, Visual Arts
Dunn, Marvin, Ph.D./University of Tennessee), Associate Professor, Psychalogy
Dwyer, Richard, Ph.D. (University of California at Los Angeles), Professar, English
Elkins, Charles, Ph.D. (Southern Illinois University), Associate Dean, Bay lista Campus, Director of Humanities, and Professor, English
Elkins, Mary Jane, Ph.D. (Southern Illinois Lniversity), Assistant Professor, English
Escovar, Luis, Ph.D. (Pennsylvania State Lniversity), Assistant Professor, Psychology
Fink, Philip, Ph.D. (University of Miami), Chairperson and Prafessor, Performing Arts

Finley, Gordon, Ph.D. (Harvard University), Professar, Psychology
Fisher, Robert, Ph.D. (University of Kansas), Professor, Mathematical Sciences
Fjellman. Stephen, Ph.D. (Stanford University), Assaciate Professor, Sociology and Anthropology
Flanders, James, Ph.D. (Vanderbilt University), Associate Professor, Psycholagy
Flexser, Arthur, Ph.D. (Stanford University), Assistant Professor, Psychology
Foos, Paul, Ph.D. (Bouling Green State University), Assistant Professor, Psychology
Forbes, Barbara, Ph.D. (University of California at Berkeley), Assistant Professor, Visual Arts
Fox, Tillie, M.S. (University of Miami), Instructar, Mathematical Sciences
Gathercole, Virginia, Ph.D. (University of Kansas), Assistant Professor, English
Ghai, Gauri, Ph.D. (Iowa State University), Assaciate Professor, Mathematical Sciences
Gewirtz, Jacob, Ph.D. (State University of low'a), Chairperson and Professor, Psychology
Girden, Edward, Ph.D. (University of Illinais), Distinguished Professor, Psychology
Goldberg, Walter, Ph.D.(University of Miami), Associate Professor, Biological Sciences
Gonzalez-Mendoza, Ramon, Ph.D. (Frei Universitat, Berlin), Professor, Modern Languages
Gonzalez-Reigosa, Fernando, Ph.D. (Florida State University), Associate Professor, Psychology
Gotterer, Malcolm, D.B.A. (Harvard University), Professor, Mathematical Sciences
Gottlieb, Joel, Ph.D. University of California at Riversidel, Associate Professor, Political Science
Guers-Villate, Yvonne, Ph.D. (Bryn Mawr College), Professor, Modern Languages
Hall, James, Pb.D. (University of Utah), Associate Professor, English
Hann, Robert, Ph.D. (Temple University), Assistant Professor, Philosophy and Religion
Hardy, Kenneth, Ph.D. (Tulane University), Associate Professor, Physical Sciences
Hauptli, Bruce, Ph.D. (Washington University), Assistant Professor, Philosophy and Religion
Henley, Carol, M.S. (University of Miami), Instructor, Mathematical Sciences
Henley, Kenneth, Ph.D. (University of Virginia), Assistant Prafessor, Philosophy and Religion
Herriott, Arthur, Ph.D.(University of Florida), Associate Dean, College of Arts and Sciences and Professor, Physical Sciences
Howell, Ina Parks, M.S. (Northwestern University), Instructor, Mathematical Sciences

Huchingson, James, Ph.D. (Emory University), Chairperson and Assistant Professor, Philosophy and Religion
Jacobs, Ellen, M.S. (Illinois Institute of Technology), Associate Professor, Visual Arts
Jensen, John, Ph.D. (Harvard Universily), Chairperson and Associate Professor, Modern Languages
Jhabvala, Farrokh, Ph.D. (Fletcher School of
Law and Diplomacy), Assistant Professor, International Relations
Johnson, Paulette, Ph.D. (Kansas State University), Assistant Professor, Mathematical Sciences
Jorge, Antonio, Ph.D. (Villanova Universidad), Professor, International Relations
Kaminsky, Howard, Ph.D. (University of Chicago), Chairperson and Professor, History
Kandel, Randy, Ph.D. YCity University of New York), Associate Professor, Sociology and Anthropology
Karels, Gordon, Ph.D. (Purdue University), Assistant Professor, Economics
Kaufman, Arie, Ph.D. (Ben Gurion University), Assistant Professor, Mathematical Sciences
Keller, Leonard, Ph.D. (Yale University), Associate Professor, Physical Sciences
Konkel, Richard, Ph.D. (Bowling Green University), Associate Professor, Philosophy and Religion
Kovacs, George, Ph.D. (University of Louvain), Professor, Philosophy and Religion
Kraynek, William, Ph.D. (Carnegie-Mellon University), Assaciate Professor, Mathematical Sciences
Kurtines, William, Ph.D.(Johns Hopkins University), Associate Professor, Psychology
Landrum,'John, Ph.D. (University of Southern California at Los Angeles), Assistant Professor, Physical Sciences
Lardaro, Leonard, Ph.D.(Indiana University), Assistant Professor, Economics
Lee, David, Ph.D. (Rutgers University), Assis tant Professor, Biological Sciences
Leed, Eric, Ph.D. (University of Rochester), Assaciate Professar, History
Leeds, Marie, M.A. (University of Miami), Assistant Professor, Performing Arts
Levine, Barry, Ph.D. (New School for Social Research), Associate Professor, Sociology and Anthrapology
Levitt, Mary, Ph.D. (Syracuse University), Assistant Professor, Psychology
Landrum, John, Ph.D. (University of Southern California at Los Angeles), Assistant Professor, Physical Sciences
Liassatos, Ponagis, Ph.D.(University of Pennsylvania), Assaciate Professor, Economics

## Faculty

Lilie, Joyce R., Ph.D. (John Hopkins University), Associate Professor, Political Science
Lowery, Shearon, Ph.D. (Washington State University), Assistant Professor, Sociology and Anthropology
MacDonald, Charles, Ph.D. (University of Virginia), Assistant Professor, International Relations
Mackey, Wesley, Ph.D. (University of Manitoba), Assistant Professor, Mathematical Sciences
Maguire, William, M.S. (Ittinois Institute of Technotogy), Assistant Professor, Visual Arts
Maingot, Anthony, Ph.D. (Ftorida State University), Chairperson and Professor, Sociotogy and Anthropotogy
Makemson, John, Ph.D. (Washington State University), Associate Professor, Biologicat Sciences
Martinez, Zaida, M.S. (Pennsylvania State University), Instructor, Physical Sciences
Mau, James A., Ph.D. (University of California at Los Angeles), Dean, College of Arts and Sciences and Professor, Sociology and Anthropotogy
Maurrasse, Florentin, Ph.D. (Columbia University), Associate Professor, Physical Sciences
Mazer, Paul, M.F.A. (Pennsytvania State University), Associate Professor, Performing Arts
McElfresh, Clair, D.M.A. (Case Western Re* serve University), Professor, Performing Arts
McKenty, Geoffrey, Ph.D. (University of Iltinois-Urbana), Assistant Professor, Mathematical Sciences
Mintz, Stephan, Ph.D. (John Hopkins University), Associate Professor, Physical Sciences
Moncarz, Raul, Ph.D. (Florida State University), Associate Professor, Economics
Moore, Howard, Ph.D. (University of Arkansas), Chairperson and Professor, Physicat Sciences
Morgan, Dahlia, Diplomate of College Teaching (University of Florida), Assistant Professor, Visual Arts and Director, Art Gallery
Moran, Gary, Ph.D. (Katholieke University, Nijmegan, Nethertands), Professor, Psychotogy
Murison, Gerald, Ph.D.(John Hopkins University), Associate Professor, Biological Sciences
Navlakha, Jai, Ph.D. (Case Western Reserve University), Assistant Professor, Mathematical Science
Nelson, Brian, Ph.D. (University of Catifornia at Riverside), Associate Professor, Political Science
Obata, Yoshihro, Ph.D. (Michigan State University), Associate Professor, Performing Arts

Okubo, Case, Ph.D. (University of Guelph), Assistant Professor, Biologicat Sciences
Osborne, William, Jr., Ph.D. (Emory University), Associate Professor, Sociology and Anthropology
Parker, Janat, Ph.D. (University of California at Berkeley), Associate Professor, Psychology
Parker, John, Ph.D. (University of Catifornia at Berketey), Associate Professor, Physical Sciences
Peterson, Brian, Ph.D.(University of Wisconsin), Associate Professor, History
Peterson, Joyce, Ph.D. (University of Wisconsin), Assistant Professor, History
Pinto, Carmela A., Ph.D. (Michigan State University), Assistant Professor, English
Pyron, Darden, Ph.D.(University of Virginia), Assistant Professor, History
Rock, Howard, Ph.D. (New York University), Associate Professor, History
Rohm, Joseph, Ph.D. (Florida State University), Associate Professor, Performing Arts
Rosenberg, Mark, Ph.D. (University of Pittsburgh), Assistant Professor, Political Science
Rotten, James, Ph.D. (Purdue University), Associate Professor, Psychology
Rubin, Richard, Ph.D. (Washington University), Associate Professor, Mathematical Sciences
Salazar-Carrillo, Ph.D. (University of California at Berketey), Chairperson and Professor, Economics
Sanchez, Reinaldo, Ph.D. (Washington University), Associate Professor, Modern Languages
Saper, Bernard, Ph.D. (University of California at Los Angeles), Professor Psychology
Sauleda, Orlando, M.S.(Florida International University), Instructor, Mathematical Sciences
Schwartz, Richard A., Ph.D. (University of Chicago), Assistant Professor, English
Shapiro, Samuel S., Ph.D. (Rutgers University), Chairperson and Professor, Mathematical Sciences
Sheldon, John, Ph.D. (Texas A\&M University), Professor, Physical Sciences
Shershin, Anthony, Ph.D. (University of Florida), Associate Professor, Mathematical Sciences
Skotko, Vincent, Ph.D. (University of Cincinnati), Assistant Professor, Psychology
Slifker, James, Ph.D. (University of Notre Dame), Associate Professor, Mathematical Sciences
Stack, John, Jr., Ph.D. (University of Denver), Director, Liberal Studies and Assistant Professor, Political Science
Stayman, Andree, M.A.(University of Miami), Instructor, Modern Languages

Stein, Abraham, Ph.D. (University of Southern Catifornia), Professor, Biotogicat Sciences
Sugg, Richard, Ph.D.(University of Ftorida), Associate Professor, English
Szuchman, Mark, Ph.D. (University of Texas), Assistant Professor, History
Taylor, George, Ph.D. (University of Massachusetts), Assistant Professor, Biological Sciences
Thomas, Babatunde, Ph.D. Indiana University), Associate Professor, Economics
Todd, Therald, Ph.D.(University of Oregon), Associate Professor, Director of Theatre and Professor, Performing Arts
Tracey, Martin, Ph.D. (Brown University), Chairperson and Associate Professor, Biological Sciences
Vagramian-Nishanian, Violet, Ph.D. (University of Miami), Associate Professor, Performing Arts
Vickers, William, Ph.D.(University of Florida) Assistant Professor, Sociology and Anthropology
Volcansek, Mary L., Ph.D. (Texas Tech University), Associate Professor, Potitical Science
Warren, Christopher, M.A. (Lehigh University), Instructor, Potiticat Science
Watson, Donald, Ph.D. (University of Virginia), Chairperson and Associate Professor, English
Watson-Espenser, Maida, Ph.D. (University of Ftorida), Assistant Professor, Modern Languages
Waugh, Butler, Ph.D. (Indiana University), Professor, English
Welch, Marcelle, Ph.D. (University of Michigan), Associate Dean. Coltege of Arts and Sciences and Assistant Professor, Modern Languages
Wilkins, Mira, Ph.D. (Cambridge University), Professor, Economics
Williams, Willie, Ph.D. (Michigan State University), Associate Professor, Mathematical Sciences
Wyroba, Francis, M.A.(Cotumbia University), Chairperson and Professor, Visual Arts
Yudin, Florence, Ph.D. (University of Ittinois), Professor, Modern Languages

# School of Business and Organizational Sciences 



# General Information and Undergraduate Study 

The School of Business and Organizational Sciences offers academic programs leading to the undergraduate degree of Bachelor of Business Administration and the graduate degrees of Master of Business Administration, Master of International Business, and Master of Science in Management.

The School is organized into the Departments of Accounting, Finance and Intemational Business, Management, and Marketing. Complete undergraduate and Master's level programs are offered at the Tamiami Campus while selected courses are offered at the Bay Vista Campus. At the Tamiami Campus there is a central undergraduate advising unit (DM 361) and a Graduate Coordinator (DM 362B). Advisors also are available at the Bay Vista Campus.

## Programs of Study

Every student must have a program of study completed by the end of his or her first semester. Entering students should promptly make a program counseling appointment by calling (305) 552-2781 at the Tamiami Campus or (305) 940-5870 at the Bay Vista Campus. At the time of the appointment the appropriate counselor will assist the student in completing a formal program of study. (A completed program of study is one that has been filled out and signed by the student, the counselor, and the appropriate department chairperson). Questions of interpretation regarding course or degree requirements will be resolved at the time the program of study is developed. If, for some reason, a program of study is not completed at least two semesters before a student is expected to graduate, the student may not be permitted to register for future classes.

Also, if a student registers as a Special Student, please note that no more than 12 semester hours of credit (undergraduate), or 9 semester hours of credit (graduate) may be applied toward a degree. Special Student courses must be approved in advance by a program counselor.

## Academic Standards

1. SBOS undergraduates must earn a grade of "C" or better in all courses within their major(s).
2. SBOS undergraduates will be required to pass a Readiness Examination in the areas of English, statistics, and accounting. Students must pass the Readiness Examination in the areas noted as a prerequisite for registration in any core or major course.
3. Undergraduate and graduate students may not enroll more than twice in any SBOS course without the written permission of the Dean. This permission will be granted only in those exceptional cases where fail-
ure to complete a course successfully is demonstrated to be unrelated to classroom performance.
4. All SBOS students must satisfy the requirements of their respective programs of study and, additionally, must satisfy all university requirements for graduation.
5. See University General Information regarding Academic Warning. Probation, and Dismissal.

## Undergraduate Study: General Information

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 have some knowledge of accounting, mathematics, computer programming, and economics (accounting majors should also have coursework in the area of calculus and logic). 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) Pre-core courses where necessary;
2) Certain required courses designed to provide the student with a common body of knowledge, including:
a. a background of concepts and processes in the marketing, production, and financing of goods and services in the business enterprise and related organizations;
b. a background of the economic and legal environment as it pertains to profit and non-profit organizations along with ethical, social, and political influences;
c. a basic understanding of concepts and applications in accounting. quantitative methods, computers, and management information systems;
d. a study of communication theory, behavior, and interpersonal communications;
e. a study of administrative processes and decision-making under conditions of uncertainty, including policy analysis at the overall management level;
3) Courses required for the students major;
4) Approved elective courses.

The student entering an undergraduate program of the School of Business and Organizational Sciences is required to meet the following four standards:

1) 60 semester hours ( 90 quarter hours) completed.
2) grade point average of 2.0 or above.
3) satisfaction of general University require-
ments for admission, including, in this
case, the general education requirements. The general education requirements are: English composition (6) semester hours, humanities (6) semester hours, social science (6) semester hours, natural science (6) semester hours, mathematics (3) semester hours, electives in one or more of the above areas (9) semester hours.
If a student has above a 2.0 GPA , he or she may be deficient in 3 semester hours of general education credits and still be accepted into this program. All lower division deficiencies must be completed during the student's first two semesters at Florida International University.

## 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 juniorsenior level credit at an accredited four year of 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 changing 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 30 semester hours of course work at Florida International to qualify for the $B B A$ 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, may seek 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 semester. A grade of $E M$ will be noted on the course grade roll at the end of the semester if the student, in the judgment of the professor, has passed the special examination.

## Course Selection

Generally, a junior level student should concentrate on the 36 semester hours of core courses (and pre-core courses, if needed). Courses at the 4000 and 5000 levels are nor-
(Continued)

## Undergraduate Business

mally taken during the senior year, and the student must have the necessary background betore enrolling.

## Graduation Procedures

1. During the first year in the program, undergraduate and graduate students develop and sign, along with their counselor and chairperson, 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 student eligibility for a degree.
2. Approximately four 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, upon receipt of this application, has the appropriate faculty advisor review the student's record to determine that he or she has fulfilled, or is in the process of fulfilling, the courses required for graduation (as listed in the program of study).
4. If the student's degree progress is deemed satisfactory, the faculty advisor, Department Chairperson, and Dean certify the application for graduation, contingent upon satisfactory completion of course work taken as the student's final semester of study.

## Undergraduate Majors

Major programs leading to the Bachelor's degree are offered in Accounting, Finance, International Business, Management, (including Personnel Management and Information Systems), Marketing and Real Estate.

## Undergraduate Business Program Requirements

## LOWER DIVISION PREPARATION:

The following courses, in addition to the other requirements for the Associate of Arts degree, should be a part of the 60 semester hours ( 90 quarter hours) of lower division coursework completed in order to enter these upper division majors: 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. It completed at Florida International University, this coursework will normally be taken in addition to the 60 semester 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 requires that fundamental experience in this area be achieved.

Therefore, prior to enrollment in C1S 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 undergraduate counselors.
UPPER DIVISION PROGRAM:
Semester Hours
Pre-Core Courses Required for Business Administration Students:
*ACC $3300 \quad \begin{aligned} & \text { Accounting for } \\ & \\ & \text { Decisions }\end{aligned}$
*ECO 3003 Economics, Man \&
*STA 3132 Quantitative Methods for Administration 3 COP 3172 Basic Programming for Business

3
12
*NOTE: STA 3132, ECO 3003 and ACC 3300 will be waived if the student received an $\mathrm{A}, \mathrm{B}$, or C in the appropriate lower division courses. A student should see a counselor to determine whether these courses should or should not be added to the program of study. 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:
Semester Hours:
FIN 3403 Financial Management 3
MAN 3010
MAR 3023
**CIS 3000
**ACC 3303
ECO 3432
Organization and
Management 3
Marketing Management 3
Introduction to
Information Systems 3
Planning and Control 3
economics 3
QMB 3150 Applications of
Quantitative Methods
in Business 3
MAN 3503 Managerial Decision
MAN 4521 Production
Management 3
MAN 370I Business and Society 3
MAN 3602 International Business 3
MAN 4722 Policy Analysis 3
**These courses should not be taken by students majoring in accounting. (See model schedule for accounting majors).
$\begin{array}{lr}\text { Major: Required Credits } & 12-21 \\ \text { Approved Elective Credits } & 3-12\end{array}$
Approved Elective Credits 3-12
TOTAL (does not include deficiencies) $\quad 60$ NOTE: All electives must be approved in advance by the Counseling Office.

## Prerequisites for Business Core Courses

As noted under SBOS General Information (Academic Standards), undergraduates must pass a Readiness Examination in the areas of English, Statistics, and Accounting as a prerequisite for registration in any core or major course. Prerequisites for the core courses in the School Business are as tollows:
FIN 3403 FINANCIAL MANAGEMENT ACC 3300 or its equivalent.
MAN 3503 MANAGERIAL DECISION MAKING - College algebra, statistics, and QMB 3150 or its equivalent.
MAR 3023 MARKETING MANAGEMENT None.
QMB 3150 APPLICATION OF QUANTITA-
TIVE METHODS IN BUSINESS - STA 3132, or its equivalent, and college algebra.
CIS 3000 INTRODUCTION TO INFORMATION SYSTEMS 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.
MAN 4521 Production Management - MAN 3503 and QMB 3150.
MAN 3010 ORGANIZATION AND MANAGEMENT - None
MAN 3701 BUSINESS AND SOCIETY ECO 3003 or its equivalent.
MAN 3602 INTERNATIONAL BUSINESS ECO 3432.
ECO 3432 APPLIED MACROECONOMICS - ECO 3003 or its equivalent.

MAN 4722 BUSINESS POLICY - Completion of all core course requirements. Course should be taken in student's last academic semester before graduation.

## Accounting

## Professional Accounting Majors

Charles A. Nickerson, Professor and Chairperson
Kwabena Anyane-Ntow, Assistant Professor
Rolf Auster, Professor
Richard B. Byars, Assistant Professor
William L. Campfield, Visiting Professor
Jack L. Carter, Assistant Professor
Lucia S. Chang, Associate Professor
Manuel Dieguez, Instructor
Reza Espahbodi, Assistant Professor
Donald W. Fair, Instructor and Assistant Dean
Irving L. Fantl, Professor
Rosalie C. Hallbauer, Associate Professor
Harvey S. Hendrickson, Professor
David Lavin, Associate Professor
Myron S. Lubell, Associate Professor
Kenneth S. Most, Professor
Leandro S. Nunez, Instructor
Robert B. Oliva, Assistant Professor
Edward P. Phillips, Assistant Professor
Leonardo Rodriguez, Associate Professor and Dean
Lois Slutsky, Instructor
Theodor Sokolowski, Instructor
Doria Yeaman, Lecturer
The Bachelor's degree program in accounting consists of two parts: the core ( 36 semester hours) and the concentration in accounting ( 24 semester hours).

Accounting majors must complete MAC 3233 (Calculus) and PHI 3100 (Logic) as prerequisite courses or present acceptable coursework in the areas of calculus and logic at the lower division level.
Required courses for an emphasis in Managerial Accounting are: ACC 4102, ACC 4122, ACC 4201, ACC 4301, ACC 4501, ACC 4522, ACC 4731, ACC 4348.
Required courses for an emphasis in Financial and Public Accounting are: ACC 4102, ACC 4122, ACC 4201, ACC 4301, ACC 4501, ACC 4522, ACC 4601, ACC 4731.

## Florida CPA Requirement

Completion of a Bachelor of Business Administration degree program with emphasis in accounting, while available, will not be accepted by the Florida State Board of Accountancy as fulfilling requirements to sit for the Certified Public Accounting examination after August 1, 1983.

The law relating to the practice of public accounting (Chapter 473, Florida Statutes 1979) provides in Rule 21A-9.02, Concentrations in Accounting and Business, that:
(1) For purposes of section 473, F.S., if application for the Uniform CPA Examination is made prior to August 2, 1983, an applicant must have a baccalaureate degree from

## Finance



Princ. of Accounting 1 Princ. of Accounting II Business Statistics Physical Education or
Health Maintenance (other than elementary) above the minimum requirement may be substituted for general business hours.

## 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 nonbusiness baccalaureate degree should consult an academic counselor for alternative programs that meet the Florida State Board of Accountancy requirements).

| First Year |  |
| :--- | :--- |
| Pre-Calculus Algebra | English Composition |
| English Composition | Calculus I |
| Social Science | Humanities |
| Natural Science | Intro. to Logic |
| Intro. to Data Processing |  |

Second Year Princ. of Economics 1 Princ. of Economics II English Elective Natural Science
Intro. to Psychology
Social Science
Humanities at least 30 semester hours or 45 quarter hours, or the equivalent, in excess of those required for the baccalaureate degree including a total educational program with a concentration in accounting and business as follows:
(a) 36 semester or 54 quarter hours in accounting education which shall include not less than: 9 semester or 14 quarter hours in financial accounting, including cost accounting, 6 semester or 9 quarter hours in auditing and 6 semester or 9 quarter hours in accounting taxation, and
(b) 39 semester or 58 quarter hours in general business education.
(3) For purposes of this rule, accounting hours
an accredited college or university with a major in accounting, or its equivalent, with a concentration in accounting and business subjects. A concentration in accounting and business is defined as an educational program that includes at least 18 semester hours or 27 quarter hours, or the equivalent, in accounting education above the elementary level and 27 semester or 40 quarter hours, or the equivalent, in general business education.
(2) For purposes of Section 473, F.S., if application is made after August 1, 1983, an applicant must have at least a baccalaureate degree or its equivalent, from an accredited college or university with a major in accounting, or its equivalent, plus

## Third Year

Semester 1
FIN 3403
QMB 3150
ACC 4102
ECO 3432
MAN 3010

Semester 1
ACC 4301
ACC 4501
ACC 4601
BUL 4112
MAN 3602 Semester 2
ACC 4122
MAN 3503
MAR 3023
BUL 4111
MAN 3701
Fourth Year

Note: Pre-core deficiencies must be completed in Semester 1 of the third year.

## Finance Major

George Simmons, Distinguished Service Professor and Chairperson
Alan Gart, Professor
Soga Ewedemi, Assistant Professor
Jean-Franois Hennart, Associate Professor
Constantine Kalogeras, Associate Professor
Arun Prakash, Assistant Professor
Emmanuel Roussakis, Professor
William Welch, Associate Professor
DEGREE: Bachelor of Business Administration
The Finance program leading to the BBA degree is designed to give the undergraduate student managerial finance skills in the areas of banking, corporate finance, investments, and financial markets. The program consists of:
(1) 36 semester hours of general business core courses
(2) 12 semester hours of finance core courses: FIN 3404 Intermediate Finance

# International Business Insurance and Management 

FIN 4304 Financial Markets and Institutions
FIN 4502 Security Analysis
FIN 4324 Commercial Bank Management
*(3) 9 semester hours of finance electives selected from any 4000 or 5000 level FIN prelixed courses or REE 5305 or REE 5207, and
*(4) A 3 semester hour free elective course.
The prerequisite for FIN 3404 and all 4000 and 5000 level finance courses is FIN 3403.
${ }^{\text {* }}$ International Business double majors are required to complete FIN 4611 International Finance and 3 additional 4000 or 5000 level International Business courses.

## Insurance Major

An insurance major is offered through the Department of Finance and International Business. An insurance major is required to take 15 semester hours of insurance courses at the 4000 level. For most students majoring in insurance the following live courses are recommended:

RMI 4015 Principles of Insurance
RMI 4212 Property Insurance I
RMI 4213 Property Insurance Il
RMI 4220 Casualty Insurance I
RMI 422I Casualty Insurance ll
These five insurance cousses 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 RM1 4115 - Lite Insurance, RMI 4016 - Management of Insurance Enterprise, or other insurance offerings. Students may also be eligible for the Certificate of Professional Insurance Accomplishment.

## International Business Major

George B. Simmons, Distinguished Service Professor and Program Coordinator Irving Fantl, Professor
Alan Gart, Professor
Jean-Francois Hennart, Associate Professor
Richard Hodgetts, Professor
David Lavin, Associate Professor
Jan B. Luytjes, Professor
Kenneth S. Most, Professor
Marta Ortiz, Assistant Professor
Leonardo Rodriguez, Associate Professor and Dean
Emmanuel Roussakis, Associate Professor
Bruce Seaton, Associate Professor
George Sutija, Associate Professor
Ronald H. Vogel, Associate Professor

## (For Non-Accounting Majors)

An International Business (IB) major is of-
tered through the Department of Finance and International Business. The lB major must take MAN 3602 - International Business 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 4611 - International Financial Management 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 4721 | International Accounting |
| :--- | :--- |
| FIN 461] | International Financial <br> Management |
| MAN 4600 | International <br> Management |
| ECS 3003 | Comparative Economic <br> ECO 4701 |
| Systems <br> World Economy <br> ECO 4733 <br> Multinational <br> Corporation |  |
| M |  |

(See advisor for additional electives)
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 sceking 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 with slight modilication. In addition to the eight senior level courses required of Accounting majors, the Accounting - IB dual major must take ACC 4271 - International Accounting as an elective. He or she must also select two electives from the list of electives noted above. FIN 4611 - International Financial Management is highly recommended as one of these.

## Management Major

Enzo R. Valenzi, Associate Professor and Chairperson
Steve Altman, Associate Professor and Vice President, Academic Affairs
Elias M. Awad, Professor
Wesley D. Challacombe, Instructor
Gary Dessler, Professor
Herman Dorsett, Associate Professor
Dana Farrow, Associate Professor
J.C.R. Forehand, Associate Professor

Emest Friday, Assistant Professor
G. Ronald Gilbert, Associate Professor

Edward L. Hannan, Associate Professor


Richard M. Hodgetts, Professor
William T. Jerome, Distinguished University Professor
Willabeth Jordan, Instructor
Karl O. Magnusen, Associate Professor and
Associate Dean
Joan Mills, Assistant Professor
Daniel J. Robey, Associate Professor
Leonardo Rodriguez, Associate Professor and Dean
Gloria Shapiro, Assistant Professor
Larry Smith, Associate Professor
William M. Taggart, Professor

## Efraim Turban, Professor

Steve H. Zanakis, Associate Professor
DEGREE: Bachelor of Business Administra-

## tion

The Department of Management offers degree programs of study at the Bachelor's level in Organizational Theory. Personnel Management, Behavioral Science, Management Science, and Information Systems. 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 12 semester hours of courses listed with the Management Department at the 4000 level.

Alternative courses for Management students in specilic subject areas:

1. Personnel Management (Setect 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.Information Systems:

MAN 4820 Systems Analysis and Design
MAN 4821 Information Systems Development
MAN 4822 Systems Management
MAN 4201 Organization Theory

# Marketing, Real Estate, Transportation Graduate Study 

## 3. Management: Option A.

MAN 4301 Personnel Management
MAN 4201 Organization Theory
MAN 4151 Behavioral Sciences in Management
MAN 4120 Intergroup Relations in Organizations.
4.Management: Option B.

MAN 4151 Behavioral Science in Management
MAN 4600 International Management
MAN 4201 Organization Theory
MAN 4802 Small Business Management
5.Management: Option C.

MAN 4142 Managerial Decision Styles
Any three (3) other courses listed with the
Management Department
NOTE: Elective courses outside SBOS should be taken in the Departments of Economics, Mathematical Sciences, or Psychology. Exceptions may be permitted with the approval of the Department Chairperson.

## Marketing Major

Bruce Seaton, Associate Professor and Acting Chairperson
Yao Apasu, Assistant Professor
Anne Fiedler, Instructor
Robert Hogner, Associate Professor
Jan B. Luytjes, Professor
J.A.F. Nicholls, Associate Professor

Marta Ortiz, Assistant Professor
Lynda Raheem, Instructor
Sydney Roslow, Associate Professor
Ronald H. Vogel, Associate Professor
The Marketing Major requires 15 semester hours of senior ( 4000 ) level marketing course work, of which the following 9 hours are required:

$$
\begin{array}{ll}
\text { MAR } 4503 & \text { Consumer Behavior } \\
\text { MAR 4613 } & \text { Marketing Research } \\
\text { MAR } 4713 & \text { Cases in Marketing } \\
& \text { Management }
\end{array}
$$

The remaining 6 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 undergraduate marketing offerings or any mix of courses.
Approved Etectives: Marketing majors may select any 4000 -level business course as an elective. With the prior approval of the Counseling Office, certain non-business courses also may be used as electives (depending upon their relevance to the student's academic program and career objectives).

## Real Estate Major

William R. Beaton, Professor Jerry Belloit, Assistant Professor Vance R. Johnson, Assistant Professor

A real estate major at the Bachelor's degree level is offered through the Department of Finance and International Business within the School of Business and Organizational Sciences. The real estate major is expected to take 15 semester 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 introductory course (REE 4043 - Advanced Real Estate Fundamentals) as well as four other 3 semester 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. The student who wishes to major in Transportation Management is required to take 15 semester hours of transportation management courses at the senior (4000) level. The student is required to take TRA 4240 - Transportation Systems and Services for 3 semester hours of major field credit. Besides this course, the student is encouraged to take other courses in transportation management (such as TRA 4012 Transportation Logistics; TRA 4380 - Transportation Policy; 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, and Master of Science in Management, in Accounting, Finance, Management Information Systems, and Real Estate are offered.

The Master of Business Administration degree is designed to give the MBA student a liberal management education and to assist the student in preparing for his or her chosen career. More specialized preparation is available in the four Master of Science in Management (MSM) programs.

## 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) Admissions to the Master of Business Administration (MBA), Master of International Business (MIB), MSM - Finance, and MSM - 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:
$(\mathrm{GPA} \times 200)+(\mathrm{GMAT}$ SCORE $)=1000$, with a minimum score of 500 on the GMAT.

# Graduate Study Master of Business Administration 

b) Admission to the MSM - Accounting program requires the applicant to meet the combined GMAT-GPA score of 1000 (with a 500 minimum on the GMAT) as given in (a) above. Additionally, however, each applicant must have an undergraduate major or its equivalent in accounting and must have earned a 3.0 GPA both in the accounting major or its equivalent and in all upper-division coursework.
c) Admission to the MSM - Management Information Systems program requires a combined score of at least 1000 points computed as follows:
$($ GPA $\times 200)+($ GMAT SCORE $)=1000$, WITH A MINIMUM OF 530 ON THE GMAT. A WAIVER OF 10 POINTS ON THE GMAT REQUJREMENT WILL BE ALLOWED FOR EACH YEAR OF RELEVANT DATA PROCESSING EXPERIENCE, UP TO A MAXIMUM OF 80 POINTS.
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, 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 long as two months after receipt of the application, depending upon the time involved in the receipt of transcripts and test scores.
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. (Copies submitted directly by applicants are not accepted for application purposes).
3. Submit 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.

## 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. This program of study is developed by the student and his or her graduate counselor and must be approved by the appropriate department chairperson.
3. (a) Complete a minimum of 36 semester hours (depending on program) of graduate level coursework, for the Master of Science in Management programs.
(b) Complete a minimum 36 semester hours of graduate level coursework, for the Master of Business Administration or Master of International Business.
4. Earn a minimum average of " $B$ " ( 3.0 ) or the equivalent in all graduate level courses and in all appropriate work completed at FIU as a graduate student.

## Grades and Credits

No courses in which a grade below " C " is earned may be counted toward the MBA, MIB, or MSM degrees. However, all work taken as a graduate student will be counted in computing the grade 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 6 semester 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, Department Chairperson, and Dean to be relevant to the student's graduate program; (5) the credit(s) were not used toward another degree; and (6) the credit(s) were completed within six years immediately preceeding the awarding of the degree. Credit is not transferable until the student has earned 15 semester hours in the 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.


## Special Student Registration

The special student should be counseled by the appropriate faculty advisor before registering for any courses.

## Five Thousand-Level Courses

5000 -level courses are open to graduate students and seniors. 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, including transfer credit, must be completed within six years immediately preceding the awarding of the degree.

## 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 University, and meet the admission and program requirements in effect at the time of the change of major.

## Master of Business Administration (MBA)

The objective of the Master of Business Ad ministration (MBA) program is to provide the student with a general background in the concepts and processes of administration. The MBA program at Florida International University is aimed at developing a management generalist who has a breadth of knowledge and understanding, and who is oriented toward pragmatic problem solving.

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 36 semester hours of the MBA courses. The

# Master of International Business Master of Science in Management 

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. The elective may be taken from any of the 6000 level offerings in Business Administration. Students whose background in accounting, statistics, or economics is evaluated to be inadequate will be required to complete ACC 6011 (Financial Accounting Analysis), QMB 6603 (Quantitative Methods in Management), and/or ECP 6704 (Managerial Economics) as prerequisites to the program.

| Area | MBA PROGRAM |  |
| :---: | :---: | :---: |
|  | Regular Course | Possible <br> Substitute <br> Courses ${ }^{1}$ |
| Information | MAN 6830 | MAN 6833 |
| Systems | Organization | Information |
|  | Information | Systems |
|  | Systems | Planning |
| Quantitative | MAN 6721 | NAN 6836 |
| Methods* | Managerial | Systems |
|  | Decisionmaking | Analysis |
| Accounting** | ACC 6313 | (None) |
|  | Accounting | ACC 6391 |
|  | for Decision- | Seminar in |
|  | making | Managerial |
|  |  | Accounting 1 |
|  |  | ACC 6291 |
|  |  | Seminar in |
|  |  | Financial |
|  |  | Accounting |
|  |  | Theory |
|  |  | ACC 6651 |
|  |  | Studies in |
|  |  | Auditing |
|  |  | ACC 6512 |
|  |  | Income Tax |
|  |  | Planning and |
|  |  | Research |
| Finance (Corporate) | FIN 6428 | FIN 6636 |
|  | Financial | International |
|  | Management | Finance |
|  |  | FIN 6246 |
|  |  | Financial |
|  |  | Narkets |
|  |  | FIN 6806 |
|  |  | Theory of |
|  |  | Finance |
| Operations | MAN 6501 | MAN 6836 |
|  | Operations | Systems |
|  | Management | Analysis |


| Marketing | MAR 6716 | MAR 6246 |
| :---: | :---: | :---: |
|  | Marketing | Advanced |
|  | Management | International |
|  |  | Marketing |
| Management | MAN 6205 | MAN 6112 |
|  | Organizational | Group |
|  | Analysis | Processes in |
|  |  | Organizations |
|  |  | MAN 6405 |
|  |  | Labor |
|  |  | Relations |
|  |  | MAN 6601 |
|  |  | International |
|  |  | Management |
|  | MAN 6206 | (None) |
|  | Organization and |  |
|  | Management |  |
|  | Theory |  |
| Economics | ECP 6705 | FIN 6435 |
|  | Macroeco- | Forecasting |
|  | nomic | Business |
|  | Forecasting | Conditions |
|  |  |  |
|  | Management |  |
| Environment | MAN 6713 | BUL 6124 |
|  | International | Survey of |
|  | Business | Business Law |
|  | Environment | MAN 6635 |
|  |  | International |
|  |  | Business |
|  |  | Policy |
| Policy | MAN 6726 | (No |
|  | Policy | substitutes) |
|  | Analysis |  |

Elective: One 6000 level business administration course (3 semester hours).
${ }^{1}$ See the guidelines under program description above.
*For the student without STA 3132 and QMB 3150 (college algebra and statistics) background, QMB 6603 must be taken prior to MAN 6721.
**For the student without ACC 3300 and ACC 3303 (financial and managerial accounting) background, ACC 6011 must be taken prior to ACC 6313 and FIN 6428. NOTE: The first three categories - 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 semester of MBA study.

## Master of International Business (MIB)

The Master of International Business program is a 36 semester hour program designed to acquaint students with the international environment and provide basic management tools. The courses give the student a conceptual framework of international business, interna-

tional economics, and international politics, as well as a thorough background in the functional areas of business.

All students will be required to demonstrate competence in quantitative methods and accounting, or will be required to take QMB 6603 and ACC 6011 in addition to the courses listed below. Each candidate will also be required to demonstrate basic reading and speaking competence in one major world commercial language other than English.

## Required Courses:

1. ACC 6313

Accounting for Decision Making
2. MAN 6205 Organizational Analysis
3. FIN 6428 Financial Management
4. MAR 6716 Marketing Management
5. ECO 5701 The World Economy
6. ECP 6704 Managerial Economics
7. INR 6205 World Politics
8. MAN 6713 International Business

Environment
9. FIN 6636 International Finance
10. MAN 6715 Corporate Negotiations
11. MAN 6635 International Business Policy
12. MAN 6830 Organizatioṇal Information Systems

## Master of Science in <br> 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 (including taxation), Finance, Management Information Systems, 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 vary with the area of concentration. Each student will be counseled concerning his individual needs.

## MSM Accounting

The MSM program in Accounting is designed primarily to meet the Florida requirement to sit for the Certified Public Accountant Examination after September 30, 1983. Students with a bachelor's degree in a field other than accounting will be required to complete the necessary courses in business and accounting and meet other requirements before applying for admission to the MSM program.

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 Statue follows.

## Florida CPA Requirement

Beginning with applications made after July 31, 1983, a student must complete an additional 30 semester hours of accounting and general business above those required for the baccalaureate degree in order to sit for the Certified Public Accountant Examination. (For the law relating to the practice of public accounting in which concentration in accounting and business is defined see Rule 21A-9.02 on page BUS 4).

For those applying to sit for the examination prior to August 1, 1983, Rule 21A-9.03 applies regarding substitution of an additional year of accounting courses in lieu of one year of employment in the office of a Florida or out-of-state practitioner before receiving a certificate as a Certified Public Accountant:

If application for examination is made prior to August 2, 1983 for purposes of Section 473 , F.S., 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 postbaccalaureate accounting education, and at least 15 semester or 22 quarter hours in postbaccalaureate, general business education. For purposes of this rule, courses used to satisfy Rule 21A-9.02 may not be included in the additional oneyear accounting course. However, advanced accounting hours above the minimum postbaccalaureate requirement may be substituted for advanced general business courses.

## PROGRAM OF STUDY

Required Courses: nontax emphasis, 18 semester hours
ACC 6291 Seminar in Accounting ACC 6391 Theory I Seminar in M
Accounting
ACC 6512
ACC 6651
ACC 6865
ACC 6XXX Income Tax Research Studies in Auditing Governmental and Institutional Accounting Accounting Research and Reporting
Additional Courses: 3 courses ( 9 semester hours) relating to concentration
Required Courses: tax emphasis,
12 semester hours
ACC 6512
Income Tax Research Taxation of Corporations I Estate and Gift Taxation Current Developments in Taxation
Additional Courses: 4 courses (12 semester hours) in tax, 2 non-tax electives, at least one in accounting

ACC $6275^{4}$ International Accounting
ACC 6531 ${ }^{3}$ Taxation of Corporations J
ACC $6553^{3} \quad$ Estate and Gift Taxation
ACC $6554^{3} \quad$ Tax Accounting Theory and Procedures
ACC $6555^{3} \quad$ Taxation of Corporations ll
ACC $6556^{3}$ Partnership Taxation and Tax Shelters
ACC $6557^{3}$ Fudiciary Accounting
ACC $6558^{3} \quad$ Current Developments in Taxation
ACC $6559^{3}$ Seminar in Taxation
ACC $6582^{3.4}$ International Taxation
ACC $6735^{1.2}$ Seminar in Accounting Information Systems 1
ACC 6745 ${ }^{2}$ Seminar in Accounting Information Systems II
ACC $6822^{1.2}$ Behaviorai Accounting
ACC $6832^{1,2}$ Accounting and Quantitative Methods
ACC 6845 ${ }^{2}$ Seminar in Managerial Accounting Il
ACC 6932' Seminar in Accounting Theory II

| ACC $6514^{3}$ | Taxation of Deferred |
| :--- | :--- |
|  | Compensation |
| ACC 6515 | Transactions in Property |
| ACC $6516^{3}$ | Estate Planning | ACC $6516^{3}$ Estate Planning Elective: One course ( 3 semester hours) approved by the Graduate Advisor.

${ }^{1}$ Designed primarily for the Public Accounting subprogram.
${ }^{2}$ Designed primarily for the Managerial Accounting subprogram.
${ }^{3}$ Designed primarily for the Taxation subprogram.
*Designed primarily for the International Accounting subprogram.

## MSM Finance

PURPOSE: This graduate program leading to the degree of Master of Science in Management (MSM) is offered for students who want to concentrate in Finance. The MSM Program in Finance is designed to develop analytical skills and decision-making abilities in the solution of problems related to obtaining and utilizing funds. Graduates will be able to demonstrate a suitable competence in handling complex financial and investment situations. Graduates also will have a good institutional knowledge of financial and capital markets, instruments, and current developments and opportunities available to investors, financial institutions, and corporate enterprise.
CONTENT AND STRUCTURE: The program consists of thirty-six semester hours (twelve courses) divided into three groups as follows:

1. Six general core courses: All participating students are required to take these courses. However, eligible students, with counselor's approval, may waive some of these courses based on their previous education. These requirments then become electives. Electives can be selected from the finance specialization courses or accounting, economics, real estate, or computer science.
The core courses provide a general background. They cover management, economics, quantitative methods, accounting, information systems, and marketing.
2. Three finance core courses: All MSM Finance students are required to take three general finance courses. These courses give the student a working knowledge of fi nancial management, theory and markets.
3. Three finance specialization courses: Each student will select courses from those finance offerings that are available. A further concentration in a particular subject such as corporate finance, investments, or fi nancial institutions, is possible and encouraged. Individual faculty counseling is available to provide assistance in designing a field of specialization.

# MSM—Management Information Systems MSM—Real Estate Certificate Programs 

The 36 semester hour requirement may be reduced to thirty for students who possess a Master's Degree in Business Administration. Up to two graduate courses may be transferred in from another accredited school, even if no advanced degree was obtained.

Generally, students with the BBA degree will satisfy some general core course requirements and they may enroll in additional finance specialization courses. The program is thus sufficiently flexible to provide depth in finance and breadth in business and management.

## COURSES

General Core Courses
ECP 6704 Managerial Economics

$$
\begin{array}{ll}
\text { MAN } 6205 & \text { Organizational Behavior } \\
\text { QMB 6603 } & \text { Quantitative Methods } \\
\text { in Management }
\end{array}
$$

ACC 6011 Financial Accounting Analysis
MAN 6830 Organizational Information Systems
MAR 6716 Marketing Management
Finance Core Courses
FIN 6246 Financial Markets and Institutions
FIN 6428 Financial Management
FIN 6806 Theory of Finance
Specialization Courses
BAN 5652 Savings and Loans
FIN 5314 Working Capital
FIN 5473 Small Business Finance
FIN 5515 Futures Markets
FIN 6315 Commercial Banking
FIN 6316 Management of Non-banking Financial Institutions
FIN 6325 Current Issues in Commercial Banking
FIN 6426 Financial Management Policies
FIN 6436 Capital Budgeting and Long-term Resource Allocation
FIN 6456 Quantitative Methods in Financial Analysis
FIN 6516 Securities Analysis
FIN 6525 Portfolio Analysis
FIN 6625 International Bank
FIN 6636 International Finance
FIN 6906 Independent Study
FIN 6915 Master's Project in Finance
FIN 6936 Special Topics in Finance
REE 5207 Advanced Real
Estate Finance
REE 5305 Real Estate
Investment

## MSM Management Information Systems

The MSM-Management Information Systems program is designed to prepare students for positions of advanced responsibility in the analysis, design, implementation, and overall management of information systems that use computers. The program is applicationsoriented with a major focus on the theoretical bases of business programming languages, systems analysis and design, and data structure and design for business and systems management. Further, the program is specifically oriented to students who have an undergraduate degree that includes sufficient preparation in business administration and/or information system to permit advanced study in this area.

The program involves 36 credit hours of professional work consisting of 12 courses. Students completing three courses per semester may expect to finish the program in two years. Coursework may be grouped into four general areas:

Group A: ANALYSIS OF
ORGANIZATIONAL SYSTEMS

| MAN 6205 | Organizational Analysis |
| :--- | :--- |
| ACC 6011 | Financial Accounting |

MAN 6931 Current Economic and Social Implications of Information Systems
Group B: THE BASES FOR SYSTEMS DEVELOPMENT

| MAN 6721 | Managerial Decision-Making |
| :--- | :--- |
| QMB 6845 | Simulation of Management |
|  | Systems |
| MAN 6305 | Computer Administration |

Group C: COMPUTER AND INFORMATION TECHNOLOGY

MAN $6830 \quad$| Organization Information |
| :--- |
| Systems |

CDA 5163 Data Communication Systems
MAN 6837 Data Structure and File Processing in Business
Group D: INFORMATION SYSTEMS DEVELOPMENT

MAN 6834 Information Requirements Analysis
MAN 6835 Information Systems Design
MAN 6932 Seminar in Systems
Development
There are four prerequisites that students must complete before being admitted to the program: Elementary COBOL (COP 3120), Elementary Fortran or BASIC (COP 3172), Basic Statistics (QMB 6603), and Economics (ECO 3003).

Because students may come to the program with extensive applied backgrounds or

academic training in some areas covered by the curriculum, the Director of the program may allow certain elective courses to be substituted for required courses at the time the student develops his or her program of study. These electives may be taken within the SBOS, the Department of Mathematical Sciences (Computer Science), and the Department of Economics. Possible electives include: MAN 6501, MAN 6836, QMB 6805, and QMB 6855.

## 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 field of real estate syndication, limited partnerships and joint ventures.

Following a student's admission to the graduate program in Real Estate and Urban Development, each graduate student will develop an individual program of studies approved by his or her faculty advisor.

## Certificate Programs: General Information

The overall purpose of the certificate programs is to provide practicing managers with

## Certificate Programs

advanced training in the techniques and methods pertinent to their areas. The programs are for both degree and non-degree seeking students, and are available in the areas of Banking, Insurance, Information Systems, Marketing, Personnel Management, Savings and Loan, and Transportation Management. A certificate is awarded upon successful completion of each program.

## Banking Certificate General Description

The CIB (Certificate in Banking) core program consists of four undergraduate or graduate Finance courses. 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 by enrolling in one linance course each semester for four successive semesters. Applicants not possessing the appropriate educational background may fulfill the program prerequisites by successfully completing ACC 3300 , FIN 3403, and ECO 3003.

## Program Goals:

I. 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.
4. To develop in the participant the ability to make sound credit-loan decisions.
Course Requirements:

1. Basic requirements (students with an undergraduate degree in business administration or those who have completed equivalent courses may have these courses waived).
ACC 3300 Accounting for Decisions
FIN 3403 Financial Management
ECO 3003 Economics, Man and Society
2. Specific program requirements for the Certificate in Banking program.
FIN 3404 Intermediate Finance or
FIN 6426
Financial Management Policies
FIN 4303 Financial Markets and 1nstitutions
or
FIN 6246
Financial Markets and Institutions
FIN 4324
or
FIN 6315
FIN 5345
Commercial Banking Credit Analysis and Loan Evaluation

## Insurance Certificate

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 18 semester hours, or six three-credit hour classes, in 4000 level insurance courses. The Insurance Certificate requires participants to take five required courses and one elective course. Students must earn a "C" grade or better in each course taken.
Those required are:
RM1 4015 Introduction to Insurance
RM1 4212 Property Insurance I
RMI 4213 Property Insurance II
RM1 4220 Casualty Insurance 1
RMI 4221 Casualty Insurance II
The etective should normally be selected from such courses as:

| RM1 4115 | Life Insurance |
| :--- | :--- |
| RM1 4135 | Employee Fringe Benefit <br> RM1 4145 |
| Programs <br> Business and Estate <br> Insurance Planning |  |

Inquiries concerning the Certificate in Professional Insurance Accomplishment should be addressed to the Department of Finance and International Business.

## Information Systems Certificate

This program is designed as a three course undergraduate sequence for systems professionals and users heavily involved in information systems development. These courses may be taken as part of a regular degree program or as a special student not pursuing a formal degree. The purpose of the program is to provide advanced study to complement the work experience of practitioners who deal with information systems problems on a regular basis. The sequence consists of three courses to provide this complementary background.
$\begin{array}{ll}\text { MAN 4820 } & \begin{array}{l}\text { Systems Analysis and Design } \\ \text { MAN } 4821\end{array} \\ \text { Information Systems } \\ \text { Development }\end{array}$
Additional information about these offerings may be obtained from the Department of Management.


## 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 their accomplishment.

The program is comprised of a set of six three-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 three Required Courses:
MAR 3023 Marketing Management
MAR 4153 Retailing Management I
MAR 4303 Advertising Management
For electives students are recommended to take three courses from the following regularly offered Marketing classes and other selected courses:

| MAN 3701 | Business and Society |
| :--- | :--- |
| MAR 4154 | Cases in Retailing |
|  | Management |

MAR 4713 Cases in Marketing Management
MAR 4243 International Marketing
MAR 4503 Consumer Behavior
MAR 4613 Marketing Research
MAR 4344 Advertising Campaign
MAR 4103 Personal Selling
MAR 4203 Marketing Channels
MAR 4723 Marketing of Small Business Enterprises
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 Department Chairperson and Dean of the School.

## Personnel Management Certificate

The objective of the Certificate program in Personnel Management is to provide training in advanced personnel management techniques and methods to personnel professionals who do not necessarily wish to seek a degree. The pro-
(Continued)

## Certificate Programs

## Course Descriptions Business Core

gram 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 signed by the Department Chairperson and the Dean of the School will be awarded to students who complete one prerequisite statistics course and the program of four three-credit hour courses ( 12 hour total) in the personnel management areas of concentration at the graduate level. A " B " average is required for successful completion of the program.
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
SPRING: Personnel
Selection and Placement
MAN 6405 SUMMER I: Labor Relations
MAN 6351
SUMMER II: Personnel
Training and Development
For students who desire to take additional elective courses, the following are recommended:

$$
\begin{array}{ll}
\text { MAN 6331 } & \begin{array}{l}
\text { Compensation } \\
\\
\text { MAN 6411 }
\end{array} \\
\text { Collective Bargaining } \\
\text { MAN 4151 } & \begin{array}{l}
\text { Behavioral Science in } \\
\text { Management }
\end{array}
\end{array}
$$

Because admission to this program is in the Fall semester only. applications must be received prior to July 31. For additional information regarding admission, contact the Department of Management.

## Savings and Loan Certificate

The Certificate program consists of four undergraduate or graduate finance courses. 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.

This program should be of interest to persons currently employed at the middle management level in savings and loans who wish to improve their industry knowledge, i.e., branch managers, auditors, data processing people, management track personnel, individuals who sell services, and individuals (although not currently employed in a savings and loans) who desire a career in savings and loans management.

The program qualifies for tuition reimbursement at many of the participating institutions. See your personnel officer or training director for additional information.

## PROGRAM GOALS:

1. To acquaint the participant with the functioning of the American capital markets and the institutions which service these markets.
2. To survey savings and loan management techniques and methods of operation.
3. To develop within the participant the ability to systematize the loan evaluation process such that a sound rational credit-loan decision can be made. With the savings and loan program, emphasis will be placed upon the comprehension of the savings, investment, insurance and annuity goals of the individual.
ADMISSION TO THE PROGRAM: A working knowledge of financial accounting is a prerequisite for admission to the certificate program. This prerequisite can be met through either appropriate work experience, successfully passing qualifying examinations, or successful completion of Accounting 3300 (Accounting for Decisions), Economics 3003 (Economics, Man and Society), and Finance 3403 (Financial Management) or their equivalent. Applications to the program are evaluated by an admissions committee composed of both finance faculty and local savings and loan personnel.

With prior advisor approval, graduate students may transfer three of the certificate courses toward Master's degree credit while undergraduate students may transfer all of the courses toward Bachelor's degree credit.

The required courses are:
FIN 4303 Financial Intermediaries and Markets
or
FIN 6246
Financial Markets
REE 5105 Valuation of Real Estate
BAN 5652 Savings and Loan Management
REE 5207 Advanced Real Estate Finance
Applicants with a bachelor's degree who are interested in pursuing a master's degree in finance should take FIN 6246 rather than FIN 4303.

## Transportation Management Certificate

The Department of Marketing offers an undergraduate Certificate Program in Transportation Management. The program assists 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 qualification.

The Certificate program requires participants
to obtain 18 semester hours, or six three-credit hour classes (of which 12 hours are required, 6 hours elective) in 4000 -level transportation courses. Students must earn a "C" grade or better in each course taken.
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

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

Accounting concepts and techniques essential to administration of a business enterprise and the determination of income and financial posisions: and various aspects of employment legislation, as well as other select topics.
ACC 3303 Accounting for Planning and Control
Use of accounting concepts, techniques and financial data as an aid to management planning, coordination and control. Topics covered include cost behavior and control; budgeting; analysis concepts; performance measurement and analysis; and capital budgeting. Prerequisite: ACC 3300 , or equivalent.

## CIS 3000 Introduction to Information Systems

Survey of the major problems of information systems and information processing in organizations. Brief study of basic computer concepts: the information systems development cycle; the relation between information systems and decision-making; and the general systems framework for information problems. Prerequisites: Completion of the Computer Programming Proficiency Requirement.

## Accounting


#### Abstract

ECO 3003 Economics, Man and Society 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 Applied Macroeconomics
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

(3)

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 Organizaton and Management (3) An analysis of organizations and the management processes of planning, organizing, directing, and controlling in the context of sociotechnical 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
(3)

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, Introductory Statistics, and QMB 3150.

MAN 3602 International Business
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 3701 Business \& Society
An examination of the place and role of business in contemporary society. The interaction between business and its economic, legal, political, social, and international environments is discussed and analyzed in detail. Among topics which may be covered are the development and current structure of social systems, as itemized
above, which set forth the parameters in which business operates. That is, government legislation and regulation, constitutional law, political and cultural limitations, and other topics.

## MAN 4521 Production Management

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 and QMB 3150.
MAN 4722 Policy Analysis
The use of cases, guest lecturers, and gaming, to integrate analysis and measurement tools, functional areas, and public policy issues. The objective is to develop skill in broad areas of rational decision-making in an administrative context of uncertainty. Prerequisite: Completion of all core requiremenls. Must be taken in last academic semester of senior year.
MAR 3023 Marketing Management
A descriptive study emphasizing the functions and institutions common to marketing systems.
QMB 3150 Application of Quantitative Methods in Business
Applications 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, Introductory Statistics.
STA 3132 Quantitative Methods for Administration
The use of statistical tools in management; introduction of probability, descriptive statistics, and statistical inference as included.

## ACCOUNTING

## Definition of Prefixes

ACC - Accounting; BUL - Business Law.
ACC 3300 Accounting for Decisions
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 4102 Financial Accounting I

An exploration of concepts, standards, and principles underlying financial reporting, with emphasis on the measurement, analysis, and interpretation of income and changes in financial position (funds flow). Prerequisite: At least 6 semester hours of introductory financial and managerial accounting, with grades of "C" or better; or ACC 3300 with a grade of " $B$ " or better.
ACC 4122 Financial Accounting II
A continuation of ACC 4102, with emphasis on the accounting concepts, standards, and princi-
ples underlying the measurement and reporting of financial position. Prerequisite: ACC 4102, with grade of "C" or better.
ACC 4201 Financial Accounting IIl
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 (3) An in-depth study of recent developments in financial accounting. Prerequisite: ACC 4122.
ACC 4271 International Accounting
Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transfers of funds and income measurement; and the role of accounting in national economic development.
ACC 4301 Managerial Accounting
Determination and control of production costs; job order and process systems; actual and standard costs, budgetary control; cost and profit analyses; and other methods of performance measurement and analysis. Prerequisite: ACC 4102 and MAN 3503 with grades " C " or better.
ACC 4348 Topics in Managerial Accounting
An in-depth study of selected areas of managerial accounting. Prerequisite: ACC 4301 or equivalent.

ACC 4501 Income Tax Accounting
A survey of federal income taxation with primary emphasis on the taxation of individuals and corporations. Prerequisite: ACC 4122 with grade of "C" or better.

ACC 4522 Taxation of Corporations and Partnerships
An in-depth study of income taxation of corporations and partnerships, including tax planning. Prerequisite: ACC 4501, or equivalent.
ACC 4548 Topics in Taxation
An in-depth study of recent legislative, administrative, and judicial developments in taxation. Prerequisite: ACC 4501, or equivalent.

ACC 4601 Auditing
Standards and procedures applied by independent public accountants, ethics and responsibilities of auditors, development of audit programs, accumulation of audit evidence, and reporting. Prerequisite: ACC 4122 with grade of "C" or better.
ACC 4648 Topics in Auditing
An in-depth study of recent developments in auditing. Prerequisite: ACC 4601, or equivalent.

## Accounting

## ACC 4731 Accounting Information Systems

Fundamentals of information systems and use of computers in the accounting system of business enterprises. Development of computer technology, techniques of flow charting, and basic design of accounting applications. Student project includes use of computer time-sharing terminal to simulate communications and coordination between accountants and data sharing personnel. Prerequisites: COP 3172 or equivalent, ACC 4301, and ACC 4601.
ACC 4905 Independent Study in Accounting
(1-6)
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

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 6XXX Accounting Research and Writing
Investigation of numerous assigned research projects in the area of financial, managerial, and income tax accounting, and the preparation of appropriate reports in both oral and written formats.
ACC 6011 Financial Accounting Analysis
A survey of the principles and procedures of accounting. The course covers both financial and management accounting. The principal emphasis is on the potential uses, as well as limitations, of accounting information. (No credit will be given to students who have had undergraduate or graduate equivalents).

## ACC 6275 International Accounting

Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transfers of funds and income measurements; the role of accounting in national economic development. Prerequisite: ACC 4201, or equivalent, or consent of instructor.
ACC 6291 Seminar in Financial Accounting Theory I
(3)

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 4201, or equivalent, or consent of instructor.

ACC 6391 Seminar in Managerial Accounting I
Analysis of transfer pricing; product pricing;
incremental profit analysis; decision models; alternative performance measurement techniques; and other advanced topics. Prerequisite: ACC 4301 or ACC 6313, or equivalent.

## ACC 6411 Managerial Accounting

For MIB and other international students onty. Study of determination and control of production cost; budgetary control; cost-volume-profit analysis; and performance measurement. Prerequisite: ACC 6313. No credit given if ACC 4301 or equivalent completed previously.
ACC 6512 Income Tax Research
An in-depth study of the taxation and planning aspects of a variety of business and other transactions. Emphasis will be upon developing an ability to perceive tax issues and to conduct research to resolve them. Prerequisite: ACC 4501 or equivalent.
ACC 6513 Tax Accounting
An exploration of the concepts of federal income taxation and tax planning, from the point of view of the manager.

## ACC 6514 Taxation of Deferred Compensation

The taxation of qualified and nonqualified pension and profit-sharing plans, stock options, annuities, lump-sum distributions, death benefits, rollovers, self-employment plans, employee stock ownership plans, etc.
ACC 6515 Transactions in Property
An in-depth investigation into tax problems relating to basis, capital gains and losses, and nonrecognition provisions for transactions in property with special emphasis on personal property transactions and securities investments.

## ACC 6516 Estate Planning

An in-depth discussion of the use of estate tax planning tools, such as lifetime gifts, life insurance, the marital deduction, the use of trusts, future interests, annuities, powers of appointment, charitable transfers, and post-mortem planning.

ACC 6531 Taxation of Corporations I
The study of the federal tax consequences of the formation, operation, reorganization and liquidation of corporations; election of Subchapter S status; distributions and redemptions. Prerequisite: ACC 6512 or permission of the Instructor and the Advisor for the taxation specialization.

## ACC 6553 Estate and Gift Taxation

The study of the federal estate tax and federal gift tax provisions. Prerequisite: ACC 6512, or permission of the Instructor and the advisor for the taxation specialization.

ACC 6554 Tax Accounting Theory and Procedures

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 equivalent.
ACC 6555 Taxation of Corporations II
An in-depth study of the tax benefits inherent in multiple corporate groups, inctuding consolidated returns and reorganizations. Prerequisites: ACC 6512 and ACC 6531.

## ACC 6556 Partnership Taxation

(3)

The intensive study of the formation, operation, and dissolution of partnerships (general and limited). Prerequisite: ACC 6531 or permission from the Instructor.
ACC 6557 Fiduciary Accounting and Taxation
The study of the income taxation of estates, trust, and the beneficiaries thereof, including the determination of distributable net income, and throwback rules. The grantor trust and income in respect of a decedent is emphasized. The use of trusts in tax and estate planning is also explored. Prerequisites: ACC 6512 and ACC 6553.

ACC 6558 Current Developments in Taxation
The study of recent legislative, administrative and judicial developments in taxation. Prerequisites: ACC 6512 and ACC 6554.

## ACC 6559 Seminar in Taxation

Intensive study of a particular topic or a limited number of topics. The topics included in this course will depend upon the availability of faculty with expertise in the following special classes of tax problems: advanced corporate taxation; taxation of not-for-profit institutions; interstate, state and local taxation; and others, as current developments demand. Prerequisites: ACC 6512 and ACC 6554.
ACC 6582 International Taxation
The complex 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
An exploration on the concepts and objectives of internat control, auditing, and audit reports from the point of view of the manager.

## Finance

## ACC 6651 Studies in Auditing

Professional and technical aspects of auditing practice; ethics and legal responsibilities; review of field work emphasizing materiality, sampling, and working papers, reporting problems including long-form and special purpose reports; study of recent auditing developments. Prerequisite: ACC 4601 or equivalent.

## ACC 6735 Seminar in Accounting

 Information Systems IApplication 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.

## ACC 6745 Seminar in Accounting

 Information Systems IIA continuation of ACC 6735, with emphasis on the theories underlying complex information systems. Prerequisite: ACC 6735, or equivalent.
ACC 6822 Behavioral Accounting
Study of the effect of the process and products of accounting and of the relation of changes in the process and products to individual and group behavior; consideration of ways in which accounting can aid individuals and organizations to attain their goals. Prerequisite: ACC 4122 and 4301 or equivalents.
ACC 6832 Accounting and Quantitative Methods
Study of statistical and management science techniques that are or may be utilized in financial and managerial accounting. Prerequisites: MAN 3503, QMB 3150 and ACC 4731, or equivalents.

ACC 6845 Seminar Managerial Accounting II
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 6865 Governmental and Institutional
Accounting

Budgeting, accounting, and reporting standards and practices for government and other not-forprofit entities. Prerequisite: ACC 4122, or equivalent.
ACC 6907 Independent Study in Accounting
(1-3)
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty advisor and Department Chairperson required.
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 (1-3) 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 advisor and Department Chairperson required.
BUL 4100 Legal Environment of Business (3) 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 unemployment legislation, as well as other selected topics.

## BUL 4111 Business Law I

Principles of law affecting the legal environment of business; contract law; laws related to sales, torts, agencies and employment; legal relations of government and business.

BUL 4112 Business Law II
Bailments, shipment and sale of goods; suretyship; bankruptcy; commercial paper; real and personal property; insurance; relevant provisions of the uniform commercial code.

## BUL 4650 Special Topics in Business Law

Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

## BUL 4905 Independent Study in

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

## BUL 6124 Survey of Business Law

Graduate level survey of business law, which examines the social purposes, functions and forms of the law and the courts, particularly as they relate to business organizations.

BUL 6651 Special Topics in Business Law (1-6) 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 6906 Independent Study in Business Law
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

## FINANCE

Definition of Prefixes
FIN - Finance. BAN - Banking.
BAN 5652 Savings and Loans Management (3) 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: BAN 5651 or approval of Chairperson.
FIN 3404 Intermediate Finance
Special topics (multinational finance, mergers, bankruptcy and reorganization, leasing, and warrants and convertibles), and case problems in financial management. Prerequisite: FIN 3403, or equivalent.

## FIN 3949 Cooperative Education in Finance

Semesters of full-time classroom study are alternated with semesters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully ciesigned 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 4100 Estate Analysis and Planning
A personal financial management approach to estate creation, maintenance, and transfer. Uses financial analysis techniques and portfolio approaches to evaluate alternate strategies. Prerequisite: FIN 3403, or equivalent.

FIN 4303 Financial Markets
and Institutions
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: FJN 3403, or equivalent.
FIN 4313 Financial History of the

## United States

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

## Finance

FIN 4324 Commercial Bank Management (3) 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 4404 Policies for Financial Management

The process of securing and allocating funds within the organization, with emphasis on the relevant financial decision-making and policy aspects. Prerequisite: FIN 3403, or equivalent.

## FIN 4419 Capital Budgeting Techniques and Applications

The application of contemporary theory and techniques to the problem of long term resource allocation. A review of capital budgeting techniques and the implications the investment and management of capital have toward the goal of maximizing the value of the firm. Prerequisite: FIN 3403, or equivalent.

## FIN 4502 Securities Analysis

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
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 4611 International Financial Management
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: FlN 3403, or equivalent.

## FIN 4627 International Banking

Introductory survey of issues that deal with international aspects of banking. The course provides an overview of the structure and operation of the international banking function, the services offered, supporting documentation, and measures to improve the efficiency and effectiveness of the international banking organization. The purpose of the course is to acquaint the students with the daily activities in international banking. Prerequisite: Commercial Bank Mgmt. (FIN 4324) or permission of instructor.

## FIN 4713 Financial Policies for Not-ForProfit Organizations

Financial processes relevant to governmental and other not-for-profit organizations. Emphasis
is on legal, political, and market constraints on securing, managing, and expending funds. Prerequisite: FIN 3403, or equivalent.

## FIN 4904 Independent Study in

 Finance Individual conferences, supervised readings, reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
## FIN 4934 Special Topics in Finance

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 4949 Cooperative Education in Finance

Semesters of full-time classroom study are alternated with semesters 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.
FIN 5314 Working Capital Management
Intermediate theories and techniques of cash, accounts receivable, inventory, and accounts payable management. Prerequisite: FIN 3403 or FIN 6428, or equivalent.

## FIN 5345 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. Prerequisite: Limited to people admitted to Certificate in Banking program only.

## FIN 5444 Leasing and Mergers

Discussion oriented course and will provide an analytical foundation to corporate development, strategies, and resource allocation decisions. Merger activity and leasing decisions will be viewed as strategic decisions by the firm to enable them to achieve corporate objectives. Prerequisite: FIN 3403, or FIN 6428, or equivalent.

## FIN 5473 Small Business Finance

The financial markets, financial instruments, and managerial policies and techniques available to potential and existing entrepreneurs and owner/managers. Emphasis will be upon analysis of areas of opportunity for small busi-
ness: analysis of financing alternatives; and analysis of profitability. Prerequisite: FIN 3403 or FIN 6428, or equivalent.

## FIN 5515 Futures Trading

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

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.

FIN 6315 Commercial Banking
The objectives, constraints, and policies applicable to the management of commercial banks. Emphasis will be given to asset and liability management, marketing of services and other banking functions. Prerequisite: FIN 6246, or equivalent.

## FIN 6316 Management of Nonbank

Financial Institutions
(3)

The objectives, constraints, and policies applicable to the management of nonbank financial Inst.; S \& L assoc., credit unions, REITs, and insurance, invest. \& finance companies.
FIN 6325 Current Issues in Commercial Banking
(3)

Main policy issues 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 (3) 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 6246, or equivalent.
FIN 6435 Forecasting Business Conditions (3) Techniques for forecasting business conditions within local, regional, national, and worldwide contexts. Course covers appropriate methodology of statistics and economics, and techniques of computer utilization useful in achieving forecasts.

## Insurance

## FIN 6436 Capital Budgeting and Long Term Resource Allocation

The theory of capital allocation at the levef of the firm, and empirical findings. Decision modefs and their application. The pattern of capital expenditure of industries and of the economy as a whole. Investment determinants. Prerequisite: FIN 6428, or equivalent.

FIN 6456 Quantitative Methods in Financial Analysis
The applications of computer techniques to financial management of manufacturing firms and financial institutions. Prerequisite: FIN 6428, or equivalent.

## FIN 6516 Securities Analysis

An analysis of contemporary securities markets and their operations. The determinants of the risk reward structure of equity and debt securities. Prerequisite: FIN 6246 or equivalent.
FIN 6525 Portfolio Management
Financial theories will be applied to the construction of portfofios. Portfolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial institutions. Prerequisite: FIN 6516, or equivalent.

FIN 6625 International Bank Management Growth of U.S. international banking and description of international banking services. examination of lending practices, types of risk and formulation of international banking policy.
FIN 6636 International Finance
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. Prerequisites: FIN 6428, or equivalent.

## FIN 6716 Financial Management of Governmental Organizations

The budgetary process of identifying, justifying, and allocating funds. The securing of funds in the market and the efficient aliocation of funds.

## FIN 6806 The Theory of Finance

The study of the development of the theory of finance and its implications for the financial decisions made by the manager of business firms. Topics include: utifity 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

Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
FIN 6915 Master's Project in Finance
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
(1-3)
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 Department Chairperson required.

## INSURANCE

Definition of Prefix
RMI - Risk Management \& lnsurance
RMI 4015 Principles of Insurance
Types of risk; methods of handling risk; analysis of insurance as a principal method; organization and operation of insurance companies; bases for decision-making in management of personaf and business risks.

## RM1 4016 Management of Insurance Enterprise

Analysis of the operations of insurance organizations, underwriting; rate making; regufation; fegal organization; management and controf financiaf analysis; marketing systems. Prerequisites: RMI 4015 and consent of instructor.

## RM1 4115 Life Insurance

Functions and uses of life insurance; types of policy contracts; calculation of premiums and reserves; investments; legai principles; organization, management, and supervision of companies.

## RM1 4117 Personal Insurance Planning

Planning a personal program of insurance; integrating life, health and accident, property, pensions, and governmental programs.

## RM1 4135 Employee Fringe Benefit Programs

Coverage of executive compensation; contractual agreements; benefit formufas; 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
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
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 alfied fire lines; marine and other insurance.
RMI 4213 Property Insurance II
Multiple-line risk and risk management; the multiple-fine insurance industry; property and fiability hazards and policy contracts; functional aspects of underwriting, rate making, and claims handling.
RMI 4220 Casualty Insurance I
A broad concept of casuafty 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.

RM1 4221 Casualty Insurance II
A continuation of RMI 4220, but including agency management and company administration.
RMI 4305 Risk Management
Concepts and phifosophies of risk management. Application of alternatives to handling risks, including risk retention; loss prevention; corporate insurance programs; self-insurance; insurance surveys and case studies.
RMI 4405 Insurance Law
Legal environment and essentials of the law particularly applicable to the business of insurance. Emphasis on statutory reguiation in Florida.
RMI 4500 Social Insurance
Introductory analysis of the rationale for social insurance; structure of current social insurance programs; evaluation of programs; ofd-age, survivors, health, disability, and unemployment insurance.

RMI 4740 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: RMI 4015 , or consent of instructor.

## Management

## RMI 4910 Independent Study in Insurance

Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
RMI 4935 Special Topics in Insurance (1-6)
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 3)

 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

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

## RMI 6936 Special Topics in Insurance

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 EducationManagement I

A special program enabling management majors to work in jobs significantly related to their major area and career goals. Specific placement must be approved by the Department Chairperson and faculty advisor prior to enrollment. Prerequisite: qualification for Cooperative Education Program.

## MAN 4064 Dilemmas of Responsibility in Business Management

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 4120 Intergroup Relations in Organization

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 refer-
ence 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 4142 Managerial Decision Styles
An experiential, theoretical, and applied investigation of personal decision styles and their relation to management and human effectiveness. Focus upon analytic and intuitive styles of thinking.

## MAN 4151 Behavioral Science in Management

An analysis of selected concepts in behavioral science, their interaction and application to management. Topics include perception, motivation, and group behavior.
MAN 4201 Organization Theory
A comparative analysis of various theories of organization, (including the classical, biological, economic, and Cyert-March models) and of their treatment of fundamental structure; conflict, communications; group and individual behavior; and decision-making. Primary emphasis on developing an integrated philosophy of organization and management. Prerequisite: MAN 3010, or equivalent.

## MAN 4301 Personnel Management

Attention is 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

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 (3) 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 <br> Administration

Presents the theories and techniques used by management in the areas of work measurement, wage incentives and job evaluation.

MAN 4401 Industrial Relations
Organizational and economic analysis of the problems and issues arising out of legislative and judicial efforts to define the rights, duties and responsibilities of labor organizations and management in the field of labor relations.

MAN 4410 Labor, Management and Collective Bargaining
The various options for settlement of labormanagement 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, factfinding, and conciliation. The course deals also with the analysis of the labor market.
MAN 4523 Production Information Systems
A study of the special problems associated with the development of information systerns 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
(3)

Introductory survey of management issues that confront the multinational enterprise. At least one class session is devoted to each of the following topics; review of basic trade theory; tariffs and trade barriers; organizational transfer, foreign exchange; institutions affecting the multinational manager (such as IMF, IDB, Ex-in Bank, EEC, IBRD), international financial management issues in multinational accounting; personnel management, comparative business customs and behavioral issues; export-import procedures; conflicts with national interests.
MAN 4610 International and Comparative
Industrial Relations
Examines selected industrial relations systems of Western Europe, Asia and the Americas, with 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 4781 Women in Management of Business Organizations

This course is intended for students interested in the present and future status of female managers. It will 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 4802 Small Business Management
The organization and operation of the small business: accounting, finance, production and marketing subsystems. The use of analytical approach. Problems of manpower management and information flow. Possible use of EDP, case studies.
(Continued)

## Management

MAN 4820 Systems Analysis and Design
(3) 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 4821 Information Systems Development

Advanced topics in the analysis and design of computer-based management information systems. Includes feasibility studies; systems analysis; design; implementation; operation; and the interfacing of a computer-based system within the organization. Cases and field studies will be used as a basis for course projects.
MAN 4822 Systems Management
(3)

An in-depth, case-oriented study of the problems encountered in the management of systems projects. Analyst-user conflicts, communication problems within the systems department, computer evaluation and selection techniques, computer negotiations and contracts, and project management are covered in detail. Where appropriate, field study investigating a topical area will be carried out by each student.

## MAN 4905 Independent Study in Management

Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required. $\mathrm{P} / \mathrm{F}$ only.

## MAN 4930 Special Topics in Management

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. Grading option.

MAN 4949 Cooperative EducationManagement II
Continuation of MAN 3949. Prerequisites: MAN 3949, and qualification for Cooperative Education Program.

## MAN 5123 Human Interaction I: Personal Growth Laboratory

Experience designed to increase awareness of personal social impact, and sensitivity to the feelings of others; to improve interpersona! communication, and increase understanding of the change-learning process. Study and analysis of class-group participation as well as other functional social groups.

## MAN 5830 Planning for Information Systems

An in-depth study of systems concepts as they apply to information systems in organizations. Consideration of planning for an accomplishment of systems development through the phases of the life cycle and the overall manage-
ment of the information systems function. Enrollment limited to students in the MIS Certificate Program.

## MAN 5831 Analysis of Information Requirements

An in-depth study of the problems of determining effective information needs for systems users. Consideration of the development of data element dictionary capability; procedures for eliciting requirement and report content. Enrollment limited to students in the MIS Certificate Program.
MAN 5832 Design of Information Systems An in-depth study of the problem of determining an efficient information system design to meet the requirements specified by the user. Consideration of the determination of alternative designs, selection of the "best" design, and conversion of the design into programming specifications. Enrollment limited to students in the MIS Certificate Program.

## MAN 5930 Seminar in Personnel

Management

Overview and examination of the various aspects of the personnel management function. Course is only open to students enrolled in the Personnel Management Certificate Program.
MAN 6112 Group Processes in Organizations
The social and psychological processes of organizational functioning. The roles played by small groups in organizational settings.

MAN 6121 Interpersonal Behavior and Analysis
A human interaction-human relations training laboratory, designed to increase both selfawareness and understanding of behavior dynamics in groups. Course is intended to enable students to broaden their conceptual understanding of human interpersonal communications and conflict.

## MAN 6124 Human Interaction II Organizational Consultation

Theories and approaches to organization development and change, with a particular focus on public schools and organizations. Supervised laboratory on systematic consultation and action skills, including schools and organizations. Supervised laboratory on systematic consultation and action skills, including method of assessment (survey feedback, milling, confrontation meetings, systems analysis); agendasetting; feedbacks; coaching; third-party consultation for conflict management; and team training. Prerequisite: MAN 5123.

MAN 6145 Decision Styles and Managerial Effectiveness
An experiential, theoretical, and applied investigation of personal decision styles and their
relation to management and human effectiveness. Focus upon analytic and intuitive styles of thinking.
MAN 6213 Conflict in Organizations
A critical examination of the role and impact of interpersonal and intergroup conflict in organizations. Models are approaches to utilizing and resolving conflict toward constructive personal and organization ends will be emphasized.
MAN 6305 Computer Administration
The theory and practice of computer management. Topics include selection, training, job and performance evaluation, and incentive schemes as they relate to key positions of systems analysis, programming, data preparation and entry, and project management. Special attention is given to human resources management and development at various levels within the EDP department.

## MAN 6311 Advanced Personne] Management

Attention is focused on the theory and practice of modern personnel management, as related to other management functions. Topics include selection; training; job and performance evaluation; and incentive schemes. Special attention is given to human resources management and development at various organizational levels.
MAN 6321 Personnel Selection and Placement
Individual differences and their measurement in personnel selection and job placement. Job design and redesign.
MAN 6331 Compensation Administration (3) An in depth analysis of wages and salary administration, including such topics as job evaluation; wage incentive systems; and work sampling.
MAN 6351 Personnel Training and Development
Determining training needs. Training methods. The training staff. Supervisor development. Equal Employment Opportunity management.

MAN 6405 Labor Relations
Examines the collective bargaining system in the United States from the viewpoint of the practitioner. Various aspects of the environment, structure, processes, issues and impact of collective bargaining are considered. Special attention is given to the negotiation and administration of agreements.
MAN 6411 Collective Bargaining Topics
An advanced course in labor relations, for students with some background who desire more depth than that provided in introductory courses. Topics of contemporary interest, such as public sector collective negotiations, are treated at length.
(Continued)

## Marketing

## MAN 6601 International Management

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 6630 Problems in Comparative Management

Discussion of literature, readings, and cases, aimed at underscoring the differences and similarities in management behavior in different countries and cultures. General instruction in obtaining and utilizing comparative data on management differences.

## MAN 6610 International LaborManagement Relations

Comparative analysis of selected industrial relations systems and impact on multinational firms and international labor movements. Emphasis on empirical models and managementoriented case studies.

## MAN 6635 International

Business Policy

An analysis of corporate strategies in a rapidly developing and changing world environment. Emphasis will be placed on forecasting, planning, and contingency strategies. The course is taught by case method and stresses the environmental and institutional constraints on decision making within the organization. Corporate executives are invited to attend whenever possible.

## MAN 6715 Corporate Negotiations

An examination and analysis of corporate negotiation strategies in such areas as collective bargaining, mergers, joint ventures, and with government regulation agencies. The legal environment affecting the negotiated process will be closely scrutinized, as well as internal and external political processes. Prerequisites: ACC 6011, MAN 6205, FIN 6428, MAR 6716, MAN 6713.

MAN 6833 Information Systems Planning
An in-depth study of systems concepts, as they apply to information systems in organizations. Consideration of planning for systems development and its accomplishment through the phases of the life cycle, and of the overall management of the information systems function.
MAN 6834 Information Analysis
An in depth study of the problem of determining effective information needs for systems users. Consideration of the development of data element dictionary capability; procedures for eliciting requirements; and techniques for documenting requirements and report content. Prerequisite: MAN 6205.

## MAN 6835 Systems Design

(3)

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, basis of structure and design, and conversion of the design into programming specifications. Prerequisite: MAN 6834.
MAN 6836 Systems Analysis
A study of the systems approach to problem solving as it applies to any area of specialization. Consideration of the problems in determining system objectives; identifying system boundaries and constraints; marshalling resources for achieving system objectives; analyzing the subcomponents of the system and their respective objectives; and managing the system.

## MAN 6837 Data Structures and File Processing in Business

This course deals with major levels of data organization, data base management, hierarchic and associative structures, file maintenance, and privacy and security measures and safeguards.

## MAN 6895 Seminar in Management

 ScienceNew topics and new application areas will be explored. Lectures will relate to the latest advances in the theory and application of management science.

## MAN 6905 Independent Study in Management

Individual conferences; supervised readings; reports on personal investigations. Consent of faculty sponsor and Department Chairman required. P/F only.

## MAN 6910 Research Methods in Management

Covers the research methods and analytical techniques most widely used in research in human resources and general management. Emphasis is on helping students to become more aware of current techniques and their applications.

## MAN 6930 Master's Seminar in Management

An examination of recent research findings in selected areas of current concern. Emphasis is placed on readings; active discussion; and smail, short-term action and research projects. The student may make a preliminary selection of his/her master's thesis or project topic.

## MAN 6931 Current Economic and Social Implications for Information Systems

The effects and organizational implications for information systems of business and community. The privacy issue, consideration of major trends dealing with electronic funds transfer, the electronic mail, automated teller machines, and the like on business society.

MAN 6932 Seminar in Systems Development (3) Student conducts an individual research project or thesis on a topic in the area of computer personnel, systems analysis and design, or other areas within the framework of the MIS program, subject to the instructor's approval. Prerequisite: MAN 6835.

## MAN 6974 Master's Project in

Management
(1-6)
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.

## QMB 4700 Principles of Operations

 Research IApplication 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 prescheduling. Prerequisite: MAN 3503.

## QMB 6603 Quantitative Methods in

 ManagementIntroduction 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.
QMB 6805 Deterministic Models for
Management Analysis
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

Basic concepts of computer simulation of systems; application of these concepts to a variety of management problems. Industrial dynamics, urban dynamics, and large system simulation. Simulation in economic analysis, heuristic methods, and Management games are covered.

## QMB 6855 Stochastic Models for Management Analysis

Applications of probabilistic models (such as queuing, inventory, and renewal) to their managerial problems.
QMB 6875 Stochastic Models for Project Management
Review 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 indi-
vidual 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.

## MARKETING

Definition of Prefixes
MAR-Marketing.
MAR 4054 Marketing for Non-Profit Organizations
Marketing techniques as applied to non-profit organizations, including (but not limited to) the marketing of such governmental programs as housing, educational, health services, transportation, and Social Security.
MAR 4103 Personal Selling
The development of effective salesmen/ customer relationships is emphasized. Selection, training, and motivation of the sales force, and the relationship between personal selling and the other elements of marketing strategy are analyzed.
MAR 4153 Retailing Management
An examination of the role of retailing in the marketing system. Attention is concentrated on fundamentals for successful retail management. The course emphasizes basic marketing principles and procedures, including merchandising; markup-markdown; pricing; stock-turn; and sales and stock planning.
MAR 4154 Cases in Retailing Management (3) This course treats the retail marketing concentration in terms of up-to-date merchandise management methods. Emphasis is on elements of profit, open-to-buy planning, return on investment, and inventory control. The course delineates the decisions made by retailing managements and reviews their available strategies. Prerequisite: MAR 4153, or consent of instructor.

## MAR 4203 Marketing Channels

The course focuses upon institutions, functions, and flows within channels of distribution; and their integration into channels systems. Wholesaling and physical activity are emphasized. Same course as TRA 4203.

## MAR 4243 International Marketing

The course studies the information required by marketing managers to assist in satisfying the needs of consumers internationally. Special emphasis will be given to the constraints of the international environment.

## MAR 4244 Export Marketing

This course emphasizes practical approaches to export marketing, including marketing strategies by individual 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

The study of advertising in business and society, providing a broad understanding of advertising's social, communicative, and economic purposes. An examination of the types and functions of advertising. Discussion of research, media selection, budget determination, and other elements in the total advertising process.

## MAR 4343 Promotional Strategy

The course deals with problems of decisionmaking in the areas of marketing communication methods, with primary emphasis on advertising.
MAR 4344 Advertising Campaign
Management
Strategic approaches to managing advertising campaigns, including selection of approaches; market research; consumer target markets; media; advertisements; development and control of budgets. Prerequisite: MAR 4303, or consent of Instructor.

## MAR 4503 Consumer Behavior

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

An examination of the marketing research process and its role in aiding decision-making. Emphasis is placed on evaluation and utilization of research information in making marketing decisions.

MAR 4703 Current Issues in Marketing I Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 3 credit hours of independent study in marketing.
MAR 4704 Current Issues in Marketing II
Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 4703.

## MAR 4713 Cases in Marketing Management

An analytic approach to the performance to marketing management. The elements of marketing mix as the focus of decision-making in marketing are studied, and the case method of instruction is employed.

MAR 4723 Marketing of Small Business Enterprises
Designed to develop an understanding of the principles and practices which contribute to the successful marketing operation of a small busi-
ness enterprise, this course deals with marketing policies, techniques, and applications, to aid the entrepreneur in this field.
MAR 4733 Marketing and the Law
A policy and operational analysis of legislative acts and judicial interpretations of laws influencing organizations engaged in marketing activities.

MAR 4753 Marketing Game Competition (3) 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 4907 Independent Study in Marketing

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

## MAR 4933 Special Topics in Marketing

For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
MAR 4941 Marketing Internship
Full-time supervised work in a selected organization. Prerequisites: At least twenty hours in marketing; consent of instructor and Department Chairperson.
MAR 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.

## MAR 5913 Independent Study in Marketing

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

## MAR 5935 Special Topics in Marketing

For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

## Real Estate

## MAR 6246 Advanced International Marketing

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 (3) The course focuses on planning, problemsolving, and decision-making, as they apply to promotion programs. Primary emphasis is on advertising, with discussion of the role of promotion in relation to other elements of the marketing program.

MAR 6506 Advanced Consumer Behavior
Modern comprehensive models of consumer behavior are utilized as a framework for understanding consumer decision processes.

MAR 6617 Advanced Marketing Research (3) The role of research in providing information for marketing decision-making, including an examination of the research process and the tools available to the researcher.

MAR 6706 Current Issues in Marketing I
Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 3 credit hours of independent study in marketing.

MAR 6707 Current Issues in Marketing II
Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 6706.

## MAR 6717 Advanced Marketing Management

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

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

## MAR 6936 Special Topics in Marketing

(1-6)
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.

## REAL ESTATE <br> Definition of Prefix <br> REE-Real Estate

## REE 4043 Advanced Real Estate Fundamentals

Decision making processes for development, financing, marketing, and management of real estate within the framework of our governmental, economic, legal, and social systems; does not meet course content requirements of Florida Board of Real Estate for obtaining a real estate license. Prerequisite to all other courses in real estate and regional development.
REE 4433 Legal Environment of Real Estate (3) Legal environment of real property ownership, transfer and brokerage; estates in land; sales contracts; mortgage transactions; titles; conveyances; landlord and tenant; restrictions; zoning; and eminent domain; does not cover Florida Real Estate license law or licensing regulations of Florida Board of Real Estate; not a license "prep" course. Prerequisite: REE 4043.

REE 4905 Independent Study in Real Estate
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.
REE 4930 Special Topics in Real Estate (1-6) 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 5044 Real Property Analysis
A study of the decision making processes of real property asset management. Private and public policy issues regarding the housing process and the regulation of the real property business environment. Legal considerations of real property ownership, financing and transfer of interests. Prerequisite: Consent of instructor.

REE 5105 Appraisal of Real Estate
Valuation and appraisal framework applied to residential and income producing property; role of computers; valuation theory and process as a guide to business decisions.

## REE 5115 Income Property Appraisal

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 5207 Advanced Real Estate Finance
(3)

Financial analysis and structuring of real estate projects; traditional and creative concepts and mechanisms for construction and permanent
financing; portfolio problems; governmental programs; money and mortgage market analysis; computers and financial models.
REE 5305 Real Estate Investment
Advanced concepts of acquisition, ownership, and disposition of investment property; taxation and tax shelter; cash flow projection; analysis of specific types of investment property; utilization of computers as a decision-making tool; models of real estate investment analysis; case analysis and policy formulation.
REE 5505 Real Estate Management
Theories and techniques of professional management of real estate including such topics as creating a management plan; merchandising space; economics of alternates; market analysis; the maintenance process; owner-tenant manager relations; operating budgets; tax consideration; ethics.
REE 5715 Regional Real Estate Development
Operation of real estate markets in land allocation; land use decision making in real estate; real estate feasibility studies, applied to specific real estate projects.
REE 5734 Real Estate Land Development (3)
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.

REE 5736 Real Estate Land Planning
Theories of city growth and structure, operations of the real estate market in land allocation; current practices in real estate land planning.
REE 5755 Real Estate and Regional Development Policy
A capstone course in integrating all the aspects of real estate and regional development leamed in previous courses, projects, cases, and field trips. Prerequisite: Permission of Instructor.

## REE 5816 Real Estate Marketing

Techniques of selecting, training, and compensating 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.
REE 6020 Industrial Real Estate I
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.

## Transportation Management

REE 6021 Industrial Real Estate II
(3)

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 6195 Seminar in Real Estate Valuation Theory \& Practice
(3)

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 6295 Seminar in Real Estate Finance (3) A study of financial institutions, their methods; and interegional 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 6395 Seminar in Real Estate Investment and Taxation
The techniques of real estate investment analysis, utilizing present value and cash flow approaches. The impact of Federal taxation on real estate investment decisions. Prerequisite: Graduate standing and permission of instructor.

## REE 6795 Seminar in Urban Housing Policy \& Problems

Examination of national housing policies and their formulation; the role of the public and private sectors in regard to housing problems; effectiveness of various housing policies. Prerequisite: Graduate standing and Permission of instructor.

## REE 6825 Industrial Brokerage

Defines distinction 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 in Real Estate

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

REE 6932 Special Topics in Real Estate (1-6) For groups of students desiring intensive studies 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
Current trends and issues affecting industrial real estate on an international level. Topics
include; the multinational corporation and its location decisions; foreign taxation; international trade and exchange rates.
REE 6946 Industry Project
Advanced individual or group study of specialized problems in the real estate field. Guidance of study to be provided by real estate faculty. Prerequisite: Permission of advisor.

## TRANSPORTATION MANAGEMENT <br> Definition of Prefix

TRA-Transportation
TRA 4012 Transportation Logistics
Consideration of transportation logistics and its relationship to production and distribution. Discussion of characteristics, management, legislation, and public regulation of various modes of transportation.
TRA 4101 Transportation Rate Making
Description and analysis of rate making, for both passenger and cargo, in the various modes of transportation - including trucks, railroad, airlines, and ocean transportation. Classes may concentrate on one particular mode for practical applications.

## TRA 4203 Physical Distribution Management

Distribution in overall company operations; organization 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

 ServicesSurvey and analysis of transportation modes, including rail, motor, air, water, pipeline and mass transit, and their impact on the social and economic systems; discussion of current problems.

## TRA 4320 Transportation Regulation

Study of the economic and constitutional basis of transport regulation; the scope of regulation. Discussion of the regulation of industrial traffic and transport modes; the structure and policies of federal and state regulatory agencies.
TRA 4380 Transportation Policy
Consideration of national transportation policy; the principal policy issues currently facing the transportation modes.

## TRA 4410 Air Transportation

A comprehensive introduction to the total air transportation environment including general economic characteristics of basic areas; commercial, private, corporate, and airline categories; government promotion and regulation of the industry, including aircraft manufacturing and operation; air traffic control; and airport support and functions.

TRA 4411 Airport Management
(3)

Application of management principles to airport operation, with emphasis on unique characteristic of airport finance; government relations and regulations; airline relations and interdependence.
TRA 4412 Aircarrier Management
An introduction to the broad scope of airline management practices and policies. Particular emphasis on problem analysis in financing, marketing, scheduling, fleet planning, facilities planning, maintenance, and general operations.
TRA 4510 Mass Transportation and Urban Problems
Urban and metropolitan transportation development; requirements, benefits and costs of alternative approaches to mass transit; management techniques and operating principles, policy and regulation.
TRA 4906 Independent Study in Transportation
Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

## TRA 4936 Special Topics in <br> Transportation

For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.
TRA 4941 Transportation Internship (1-6) Full time supervised work in a selected organization. Prerequisite: At least twelve hours in transportation; consent of instructor and Department Chairperson required.

TRA 5245 Transportation Logistics
Quantitative methods applied to solving problems in business logistics; mathematical and statistical models; optionization theory and simulation. Problems selected from areas of physical distribution management, inventory control, mode selection, and facility locations.

## TRA 5401 Transportation Operations and <br> Carrier Management

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 6035 Graduate Survey of Transportation Management
Graduate survey of transportation, its elements, and their impact on society. History, economics, and regulatory principles in transportation. Current policies and problems for all the major
(Continued)
transportation modes.

## TRA 6905 Independent Study in Transportation

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

## TRA 6936 Special Topics in <br> Transportation

For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

## 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 6313 Accounting for Decision Making (3) 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 6705 Macroeconomic Forecasting for Management
Business macroeconomic concepts as they apply to decision making within the firm. Traditional models of income determination and forecasting analysis. Prerequisite: ECP 6704.

## FIN 6428 Financial Management

In-depth examination of asset, liability and capital structure management, with emphasis on capital budgeting techniques; risk evaluation; working capital management; and methods of short term, intermediate, and long term financing. Prerequisite: ACC 6011, or equivalent.
MAN 6205 Organizational Analysis
Individual, interpersonal, and small group behavior in complex organizations. Focus on behavior, its causes, and management interventions to improve organizational effectiveness. Research methods to study organizational behavior.
MAN 6206 Organization and Management Theory
Analysis and design of the structure and process of complex organizations. Effects of task uncertainty, growth, power, goals, and information technology on organization structure and control. Prerequisite: MAN 6205 , or equivalent.

MAN 6501 Operations Management
(3)

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: MAN 6721, or equivalent.

## MAN 6713 International

> Business Environment

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

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 6726 Policy Analysis

The use of cases, guest lectures, and gaming to integrate the analysis and measurement tools, the functional areas and public policy issued. The objective is to develop skill in broad areas of rational decision-making in an administrative context of uncertainty. Should be taken in the last semester of master's program.

## MAN 6830 Organization Information Systems

Introduction to information systems and their role in organizations from a user's viewpoint. Survey and application of the basic concepts necessary for understanding information systems. Study of the main activities in the development cycle used to acquire information systems capability. Prerequisite: MAN 6205.
MAR 6716 Marketing Management
A study of analysis and application of theory and problem solving in marketing management. Emphasis will be on the role of marketing in the organization; planning the marketing effort; management of the marketing organization; control of marketing operations; and evaluation of the marketing contribution.

## School of Business and Organizational Sciences

Dean<br>Associate Dean<br>Leonardo Rodriguez<br>Karl O. Magnusen<br>Assistant Dean<br>Donald W. Fair<br>Chairpersons:<br>Charles Nickerson<br>Finance \& International<br>Business<br>George B. Simmons<br>Management<br>Enzo R. Valenzi<br>Marketing<br>Bay Vista Coordinator<br>Bruce Seaton

## Faculty

Altman, Seven, D.B.A. (University of Southern California), Associate Professor, Management and Vice President for Academic Affairs
Anyane-Ntow, Kwabena, M.B.A.(University of Notre Dame), Assistant Professor, Accounting
Apasu, Yao, M.B.A. (UCLA), Assistant Professor, Marketing
Auster, Rolf, Ph.D. (North Western University), CPA, CMA, Professor, Accounting
Awad, Elias, D.B.A.(University of Kentucky), Professor, Management
Beaton, William R., Ph.D. (Ohio State University), Professor, Finance \& International Business
Belloit, Jerry, Ph.D. (Unicersity of Florida), Assistant Professor, Finance and International Business
Byars, Richard B., Ph.D. (North Texas State University), CPA, Associate Professor, Accounting
Campfield, William, Ph.D. (University of Illinois), CPA, Visiting Professor, Accounting
Carter, Jack L., Ph.D. (University of Cincinnati), Assistant Professor, Accounting Challacombe, Wesley, MBA (University of Miami), Instructor, Management
Chang, Lucia S., Ph.D. (University of Texas at Austin), Associate Professor, Accounting
Dessler, Gary, Ph.D. (City University of New York), Professor, Management
Dieguez, Manuel, MSM(Florida International University), CPA, Insiructor, Accounting Dorsett, Herman W., Ed.D./Columbia University), Associate Professor, Management
Espahbodi, Reza, Ph.D. (University of Alabama), Assistant Professor, Accounting
Ewedemi, Sogfa, M.B.A. (Georgia State University), Assistant Professor, Finance and International Business

## Faculty

Fair, Donald W., M.Acc.(Bowling Green State University), CPA, Assistant Dean and Instructor, Accounting
Fantl, Irving L., Ph.D. (New York University), CPA, Professor, Accounting
Farrow, Dana, Ph.D.(University of Rochester), Associate Professor, Management
Fiedler, Anne, M.B.A.(University of Miami), Coordinator of Undergraduate programs and Instructor, Marketing
Forehand, J.C.R., Ph.D. (Texas A\&M University), Associate Professor, Management
Friday, Earnest, Ph.D. (University of Miami), Assistant Professor, Management
Gart, Alan, Ph.D. (University of Pennsylvania), Professor, Finance and International Business
Gilbert, G. Ronald, Ph.D.(University of Southern California), Associate Professor, Management and Director Management Planning and Development Cenler
Hallbauer, Rosalie C., Ph.D. (University of Florida), CPA, C.M.A., Associate Professor, Accounting
Hannan, Edward L., Ph.D. (University of Massachusetts), Associate Professor, Management
Hendrickson, Harvey S., Ph.D. (University of Minnesota), CPA, Professor, Accounting
Hennart, Jean-Francois, Ph.D.(University of Maryland), Associate Professor, Finance and International Business
Hodgetts, Richard M., Ph.D. (University of Oklahoma), Professor, Management
Hogner, Robert H., Ph.D. (University of Pittsburgh), Associate Professor, Marketing
Jerome, William T., HI, D.C.S. (Harvard University), Dislinguished University Professor, Management
Johnson, Vance, M.S. (Georgia State University), Assistant Professor, Finance \& International Business
Jordan, Willabeth, MPA (Florida International University), Instructor, Management and Assistant Director Management Planning and Development Center
Kalogeras, Constantine, Ph.D.(City University of New York), Associate Professor, Finance \& International Business
Lavin, David, Ph.D. (University of Illinois), CPA, Associate Professor, Accounting
Lubell, Myron, D.B.A. (University of Maryland), CPA, Associate Professor, Accounting
Luytjes, Jan B., Ph.D. (University of Pennsylvania), Professor, Marketing
Magnusen, Karl, Ph.D.(University of Wisconsin), Associate Professor and Associate Dean, School of Business \& Organizational Sciences
Mills, Joan P., Ph.D. (University of South Carolina), Assistant Professor, Management

Most, Kenneth S., Ph.D. (University of Florida), CPA, F.C.A., Professor, Accounting
Nicholls, J.A.F., D.B.A. (Indiana University), Associate Professor, Marketing
Nickerson, Charles A., Ph.D. (University of Georgia), CPA, Professor and Chairperson, Accounting
Nunez, Leandro S., M.B.A. (Roosevelt University), CPA, Instructor, Accounting
Oliva, Robert B., J.D.(Whittier College), Assistant Professor, Accounting
Ortiz, Marta, Ph.D. (University of Miami), Assistant Professor, Marketing
Phillips, Edward P., LL.M. (New York University), Assistant Professor, Accounting
Prakash, Arun, Ph.D. (University of California), Assistant Professor, Finance \& International Business
Raheem, Lynda, M.B.A.(University of Miami), Coordinator of Graduate programs and Instructor, Marketing
Robey, Daniel, D.B.A. (Kent University), Associate Professor, Management
Rodriguez, Leonardo, D.B.A. (Florida State University), Associate Professor and Dean, School of Business and Organizational Sciences
Roslow, Sydney, Ph.D. (New York University), Associate Professor, Marketing
Roussakis, Emmanuel, Ph.D. (Catholic University of Louvain, Belgium), Professor, Finance \& International Business
Seaton, Bruce, Ph.D. (Washington Universily), Associale Professor and Acting Chairperson, Marketing
Shapiro, Gloria, Ph.D. (University of Miami), Assistant Professor, Management
Simmons, George B., D.B.A. Indiana University), Distinguished Service University Professor and Chairperson, Finance \& International Business
Slutsky, Lois, M.S.M. (Florida International University), CPA, Instructor, Accounting
Smith, Larry A., Ph.D. (State University of New York), Associate Professor, Management
Sokolowski, Theodor, MBA(Florida Atlantic University), CPA, Instructor, Accounting
Sutija, George, M.B.A. (Columbia University), Associate Professor, Finance \& International Business

Taggart, William M., Ph.D. (University of Pennsylvania), Professor, Management

Thrban, Efraim, Ph.D. (University of California at Berkeley), Professor, Management
Valenzi, Enzo R, Ph.D. (Bowling Green University), Chairperson and Associate Professor, Management
Vogel, Ronald H., Ph.D. (University of Michigan), Associate Professor, Marketing

Welch, William W., Ph.D. (University of Michigan), Associate Professor, Finance \& International Business
Yeaman, Doria, J.D. (University of Tennessee), Lecturer, Accounting
Zanakis, Steve H. Ph.D. (Pennsylvania State University), Associate Professor, Management

## School of Education

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## General Information

## School of Education

The School of Education offers courses of studies and experiences for peronnel who are or will be professionally engaged in education or training. Such professional development may lead to degrees at the bachelor, master, specialist, or doctoral level. In addition, it is feasible for experienced educators to pursue non-credit or certificate study and field experience.

Each applicant should review the numerous choices of major concentrations and program objectives. The range of programs includes childhood education, early childhood education, curriculum and instruction in the various subspecialties in secondary education, adult education, educational administration and supervision, bilingual and intercultural education, technical and vocational education, psychoeducation, urban education, community college education and human resources development, special education, international development education, counselor education, and teacher education.

Advice services are available by telephone (305) 552-2721, Tamiami Campus or (305) $940-5810$, Bay Vista Campus, by correspondence, or by prearranged visit with counselors at the Bay Vista or Tamiami Campus.
The School of Education serves county and state education agencies in inservice staff development, curriculum and materials development, joint research projects and evaluation programs. The Teacher Education Center (TEC) Program has, under formal agreement, committed specialists in the School of Education to program development and technical assistance. Of major concern is the development of urban education and bilingual education in the metropolitan areas of Dade and Broward counties. For this reason, new initiatives include programs in urban administration, urban teacher education, and Teacher Corps, adult and human resources development, and intercultural learning.

The School of Education engages in cooperative programs of study and development with national and international agencies. These include international student programs; national and international exchanges of scholars; technical assistance for the advancement of educational personnel, curriculum, materials, and research in developing nations; graduate degree and certificate programs in international development education with experiences in the major metropolitan and rural areas of Florida and, optionally, the national and international educational agencies in Washington, D.C.; global education curriculum development in schools; overseas American schooling; and study, research, and management in federal education agencies and national professional associations.

The three major purposes of the School of Education-teaching, service, and research-
are realized in its commitment in local, national, and international educational endeavors.

## General Program Design

## Undergraduate Studies

Undergraduate courses offered by the School of Education are designed to be performance or competency based, as well as field-based for professional service in education and training.

Typically, undergraduate students will complete 60 semester hours of study at Florida International University, including a residency requirement of 30 semester hours prior to graduation. Prior to formal admission to the University, a student may elect to take 12 semester hours as a Special Student which, if applicable to the major field of study, may be applied to the degree program.
Foundations of Education Requirement. Teacher education regulations in Florida require completion of one course each in the social and psychological foundations of education. These may be completed at the University or at any other accredited college or university.
Reading Competence Requirement. Florida Department of Education regulations require that teacher certification applicants show evidence of preparation in specific skills for teaching reading. All programs in the School are designed to meet this requirement.
Professional Education Core. Every teacher education student, during the junior year, must enroll in the following three common courses:

EDF 3827 Schooling in America
EDG 332I General Teaching Lab l:
Basic Teaching Skills
EDG 3322 General Teaching Lab 1I: Human Relations Skills
Subsequent special teaching laboratories and courses build on these core courses to extend and refine understandings and skills. All programs include one full semester of student teaching.

Bachelor degree programs typically require coursework in the College of Arts and Sciences or in one of the other Schools. These courses provide necessary subject matter preparation consonant with professional preparation.

Upon completion of program requirements, the Bachelor of Science degree is awarded and qualifies the student for a Florida Teacher Certificate in the field of specialization.

## Graduate Studies

Graduate studies offered by the School provide specialization in degree programs developed to reflect individual student interests. A typical program will include courses, seminars, and appropriate field experiences.

Graduate students will complete at least 30
semester hours of study at the University to earn a Master of Science in Education degree. The programs in Counselor Education and School Psychology require 60 semester hours. As a general rule, a student may transfer 6 semester hours taken at another accredited college or university toward a 30 semester hour master's degree program, and 9 hours toward a 60 hour program at Florida International University. Also, prior to formal admission to the University, a student may elect to take 9 semester hours as a Special Student which, if applicable to the major field of study, may be applied to the degree program.
Doctoral students pursue courses in cooperative programs offered by Florida International University, Florida State University, the University of Florida, and Florida Atlantic University.
Reading Competencies Requirement. Florida Department of Education regulations require all teacher education applicants to show evidence of preparation in specific skills for teaching reading. This may be waived in graduate programs for students who can verify this training at the undergraduate level or in an approved in-service education program. Otherwise, and according to the student's major, either RED 6147 or RED 6335 will be required as part of the degree program.

## Admission

## Undergraduate Studies

The School of Education will accept as an undergraduate any person who has completed a minimum of 60 semester hours of general education undergraduate study. A minimum score of 835 on the SAT exam or an ACT score of 17. Beginning July 1,1981 , applicants for the regular certificate must have completed three (3) years of satisfactory teaching or a year-long internship program which has been approved by the Department of Education.

## Graduate Studies Master's Degree Programs

An applicant for admission to graduate study must meet the existing criteria set forth by the Board of Regents of the State University System of Florida. Presently, these are a Grade Point Average of $3.0(\mathrm{~B})$ in the third and fourth year of an undergraduate program, or a combined score of 1000 on the Graduate Record Examination (verbal and quantitative sections). A special CLEP examination may be used in lieu of the GRE by certain students seeking admission to the master's degree program in Vocational Education. All applicants must submit a GRE test score.

# Educational Leadership and Human Resource Development 

## Cooperative Doctoral Programs Cooperative Specialist and Doctoral Programs

The School of Education, in cooperation with the University of Florida, Florida State University and Florida Atlantic University, offers specialist and doctoral programs in several fields and is developing others. General requirements for admission to these programs are (1) a combined score of 1100 on the Verbal and ; Quantitative portions of the Graduate Record Examination for the doctoral program, 1000 for the specialist program; (2) a grade point average of 3.5 on previous graduate work; (3) a grade point average of 3.0 in the last two years of undergraduate study; (4) at least two years of . successful experience in the field of education; and (5) at least three letters of reference.

## Bay Vista Campus

The School of Education has established a second campus at Bay Vista which is located in North Miami. The Bay Vista Campus specifically serves undergraduate and graduate students of North Dade County and the southern half of Broward County. In addition to courses offered at the Bay Vista Campus, courses are also offered in conjunction and cooperation with Broward County Community College. Broward residents interested in information regarding the Bay Vista or Broward County course offerings should call the School of Education (305) 523-4422. All Dade County residents should call '305) 940-5820.

The following degree programs are offered at Bay Vista:

1. Elementary Education - bachelor's and master's degrees
2. Early Childhood Education - bachelor's and master's degrees
3. Reading Education - master's degree
4. Administration/Supervision - master's degree
5. School Administration and Curriculum \& Instruction: Instructional Leadership Education Specialist and Doctor of Education degree (offered cooperatively with the University of Florida)
As the enrollment increases, additional programs will be instituted at Bay Vista.

In addition to the above programs, which are letailed on page 9 of the catalog, courses are egularly offered in the following program areas:

1. Courses common to all education undergraduate majors (core courses: EDF 3827 - Schooling in America; EDG 3321 Special Teaching Laboratory 1 - Basic Teaching Skills; EDG 3322 - Special Teaching Laboratory II - Human Rela-
tions Skills; and reading courses required by the State at elementary and secondary levels)
2. Physical Education
3. Bilingual Education
4. Vocational Education
5. Guidance and Counseling
6. Teaching English to Speakers of Other Languages (TESOL)
Through the School of Education additional services are available at the Bay Vista Campus. The following research projects and activities are based at the Bay Vista Campus:
7. Urban Education Institute (proposed)
8. Teacher Corps Institute
9. South Atlantic Bilingual Educational Service Center (SABES)
10. Bureau of Education of the Handicapped grant for the Severely/Profoundly Handicapped
11. Cooperative Education Specialist and Doctor of Education program in School Administration and Curriculum and Instruction: Instructional Leadership (with the University of Florida)
12. Cooperative doctoral program in Adult Education (with Florida State University)
13. Cooperative doctoral program in Community College Teaching (with Florida Atlantic University)
14. The American Association of Schools in South America
A diagnostic reading clinic is available to children who are in need of assessment. Graduate students are provided experience in the diagnosis and prescription of children who are referred to the clinic.

## Division of Educational <br> Leadership and Human Resource Development

Stephen M. Fain, Professor and Chairperson
John A. Carpenter, Professor
Charles Divita, Jr., Professor
Robert V. Farrell, Associate Professor
Allen Fisher, Associate Professor
Paul D. Gallagher, Associate Professor
Lorraine R. Gay, Professor
Barry Greenberg, Associate Professor
E. Joseph Kaplan, Assistant Professor,

Courtesy Appointment
Peter F. Oliva, Professor
Sarah W.J. Pell, Associate Professor
Ronald Perry, Associate Professor
G. Wesley Sowards, Distinguished Professor James D. Wells, Associate Professor
Sandra Woods, Assistant Professor
The Division offers graduate programs in Administration and Supervision, Adult Education, and Parks and Recreation Administration. it also offers the undergraduate "core" courses required for every teacher education student and
a Bachelor's Degree in Parks and Recreation Administration.

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 Core Courses

The Division offers the three "core" courses required for every teacher education student: EDF-3827, EDG-3321, and EDG-3322. The three "core" courses are offered for 3 hours credit every semester on the Tamiami Campus and on a rotating basis on the Bay Vista Campus. A student must earn a "C" or better in each of the "core" courses before his/her internship.

## Parks and RecreationUndergraduate <br> DEGREE: Bachelor of Science

The Parks and Recreation undergraduate curriculum offers professional preparation programs designed to prepare students for employment in a variety of work settings which have as their goals and objectives a leisure service delivery system. The program is oriented towards supervisory, lower management employment opportunities.

A student may elect to gain competencies in Park Management, Recreation Management, or Parks and Recreation Management.
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 twoyear program in Recreation Leadership or its equivalent.
UPPER DIVISION PROGRAM:
Semester Hours
Required Core Classes:
39
HFT 3403 Management
Accounting for the Hospitality lndustry
LEI 3542 Principles of Parks and Recreation Management
MAN $3010 \quad$ Organization and Management 3

# Educational Leadership and Human Resource Development 

| LEI 3524 | Personnel Management in Parks and Recreation 3 |
| :---: | :---: |
| LE] 4590 | Seminar in Parks |
|  | and Recreation |
| El 4940 | Internship I |
| LEI 4941 | Internship II 12 |
| Parks Management Emphasis: |  |
| ARC 4354 | Construction and Design of Natural Recreation |
|  |  |
| LE1 3631 | Turf Grass Management 3 |
| BOT 3823 | Horticulture 3 |
| PCB 3043 | Fundamentals of |
|  | Ecology $3$ |
| PCB 3043L | Fundamentals of |
|  | Ecology Laboratory 2 |
| Advised Electives: |  |
|  | Behavioral Science (1) 3 |
|  | Communicative |
|  | Skills (2) |
|  |  |
| Recreation Management Emphasis: 9 |  |
| POS 3153 | Urban Politics 3 |
| LEI 3437 | Program Development in |
|  | Management 3 |
| LEI 4700 | Programming for |
|  | Special Populations 3 |
| Adrised Electives: 12 |  |
|  | Behavioral Science (1) |
|  | Communication |
|  | Skills (2) |
| Total 60 |  |
| Parks and Recreation Management |  |
| Emphasis: |  |
| Students selecting this emphasis would |  |
| take required core classes and any |  |
| combination from the above emphasisconcentrations. |  |

$\overline{\text { Total } 60}$

## Graduate Programs <br> Administration and Supervision

 Master's DegreesThe 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 Il 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 require-
ments 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 6334, 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.

## Certification Program

Persons who possess a master's degree in a field other than Administration and Supervision may enroll as special non-degree seeking students to work toward certification in Administration and Supervision.

## Specialist and Doctoral Programs

FIU offers in cooperation with the University of Florida specialist and doctoral programs in School Administration and in Curriculum and Instruction: Instructional Leadership. General requirements for admission to these programs are (1) 1100 score on the Verbal and Quantitative portions of the Graduate Record Examination for the doctoral program, 1000 for the specialist program, (2) 3.5 grade point average on previous graduate work, (3) 3.0 grade point average in the last two years of undergraduate study, (4) at least two years of successful experience in the field of education, and (5) at least three letters of reference. Details about these programs may be obtained from the Chairperson, Division of Educational Leadership and Human Resources Development.
Master's Program Requirements
Elementary School
Administration and Supervision
DEGREE: Master of Science

Semester Hours

## EDA 6061 The Organization and

 Operation of Public School Systems EDA 6223 Emerging Designs for School Organization and Staff Utilization 3EDA 6510 The Administration of an Elementary School 3
EDA 6930 Seminar in Administration and Supervision
EDA 6943 Supervised Field Experience 2-3
EDE 6205 Curriculum Design for
EDF 5481 Childhood Education 3
Analysis and Application of Educational Research 3
EDG 6250 Curriculum Development EDA 6232 and Improvement
EDA 6232 School Law (3)
EDA 6242 School Finance (3)
EDS 6050 Supervision in Education
EDS 6115 Staff Development Programs in Urban School Systems
Electives: from Education, School of Business and Organizational Sciences, or College of Arts and Sciences

## Secondary School

Administration and Supervision
DEGREE: Master of Science
Semester Hours
Required Courses:
EDA 6061 The Organization and
Operation of Public Schools Systems
EDA 6223 Emerging Designs for School Organization and Staff Utilization3

EDA 6530

The Administration of a Secondary School
EDA 6930 Seminar in School Administration/ Supervision
EDA 6943 Supervised Field Experience

# Educational Leadership and Human Resource Development 

EDG 6250
EDA 6232
EDA 6242
EDS 6050
EDS 6115

ESE 6215

Analysis and Application of Educational Research 3
Curriculum Development and Improvement 3
School Law 3
or
School Finance 3
Supervision in
Education 3
Staff Development Programs in Urban School Systems 3
Secondary School
Curriculum 3
33

## General School Administration and Supervision

DEGREE: Master of Science
Semester Hours
Required Courses: 36
EDA 6061 The Organization and Operation of Public School Systems
EDA 6223 Emerging Designs for School Organization and Staff Utilization3

EDA 6232 School Law 3

EDA 6242 School Finance 3
EDA 6510 The Administration of an Elementary School 3
EDA 6530 The Administration of a Secondary School 3
EDA 6930
Seminar in School Administration/ Supervision 3
EDA 6943
Supervised Field Experience $\quad 2-3$
EDE 6205 Curriculum Design for Childhood Education 3
EDF 5481 Analysis and Application of Educational Research 3
EDG 6250 Curriculum Development and Improvement 3
EDS 6050 Supervision in Education

3
EDS 6115

ESE 6215 Staff Development Programs in Urban School Systems 3 Secondary School Curriculum 3 36

## Masters Degree Program in Adult Education

The Graduate Program in Adult Education is designed for the individual who is serving, or chooses to serve as learning facilitator, training
director, counselor, administrator, curriculum developer and/or researcher in adult and continuing education programs in business and industry, public schools, hospitals, governmental agencies, community colleges, universities, civic organizations, military service or other agencies. Graduate programs of study are designed in relation to an individual's specific interests, needs and career goals.

The Division offers two master's degree programs in Adult Education-Adult Education: Administration and Supervision, and Adult Education; Curriculum and Instruction. Two options are possible in the Administration and Supervision program: (1) Public School Administration (which leads to Florida Rank II certificate), or (2) General Administration/NonPublic School Administration (not a certification program).

## Professional Certificate in Adult Learning Systems

The professional certificate in adult learning systems is a comprehensive and integrated university-based option to provide professionals with skills and training for adult education programmers. The non-degree certificate program may be pursued (1) in conjunction with a bachelors or masters degree; or (2) beyond the bachelors or masters degree; or (3) independent of the pursuit of a degree. The latter option is for persons having special responsibilities and experiences in the field of Adult/Continuing Education.

The required course of study and required sequence is as follows:

Semester Hours
Required Courses:
20
ADE 5925 Workshop in Adult Education
Adult Teaching
ADE 5385 Adult Teaching
ADE $5180 \quad$ Program Development in Adult Education Community Level

1-6
ADE 5180

ADE 5383
Program Development in Adult Education Instructional Level
ADE 5935
Special Topics in
Adult Education Advised Electives

3
ADE 6930 Seminar in Adult
Education Research, Evaluation, and Problem Solving in Adult Education

1-3

## Admission:

To be admitted to the program the student must:
a. Hold or be seeking a bachelor's or master's degree from an accredited institution;
b. Have submitted three letters of endorsement describing ability to engage in and profit from such a program of studies;
c. Submit a personal statement of interests and goals which relate to adult/continuing education.
Applicants will develop a project or problem-oriented learning contract during the initial workshop to be pursued throughout the program. Contracts will be refined as the student progresses through the first part of the program of studies. The culminating activity, the Seminar, ADE 6930 , will require the student to complete, share and evaluate the tasks and activities within the individual learning contract.

## Cooperative Doctoral Degree Program in Adult Education

A Miami-based cooperative FIU/FSU program leading to the Doctor of Education (Ed.D) with a major in Adult Education is available to qualified and interested persons. This program is directed toward a broad spectrum of personnel from business and industry, government, public school, community colleges and universities, health agencies, libraries, religious and civic organizations, etc., whose major responsibilities call for leadership in designing, providing and evaluating education and training programs for adult learners.
Students making application to the program should consult with the academic advisors for the FIU/FSU cooperative doctoral program in order to ensure proper guidance.

## Adult Education: Administration and Supervision (Only for public school Adult Educators) <br> DEGREE: Master of Science <br> Semester Hours <br> 21

Required Core: to be selected with an advisor from the following:

ADE 5081 Principles and Practices
of Adult Education 3
ADE 5260 Organization and Administration of Adult Education 3
ADE 5385
Adult Teaching and Learning
ADE 5180 Program Development in Adult Education: Community/ Institutional Level 3

# Educational Leadership and Human Resource Development 

| EDF 548I | Analysis and Application <br> of Education Research 3 |
| :--- | :--- |
| RED 6337 | Teaching Reading in the |
| ADE | Secondary School <br> Course as an elective |

Area of Professional Emphasis: 9
EDA 606 I The Organization and Operation of Public School Systems 3
EDS 6050
EDG 6250 Curriculum Development and Improvement 3

## Adult Education:

Curriculum and Instruction
DEGREE: Master of Science
Semester Hours

## Required Core: <br> ADE 5081

Principles and Practices of Adult Education 3
ADE 5260

ADE 5385
ADE 5180
Organization and Administration of Adult Education

ADE 5180 Program Development in Adult Education: Community/ Institutional Level 3
ADE 5383 Program Development in Adult Education: Instructional/Activity Level
ADE course as an elective 3 Area of Professional Emphasis

EVT 5168
Curriculum Development in Vocational Education
EDF 5287
EDF 5481
Instructional Technology 3

Analysis and Application of Education Research 3
Electives:
The candidate will be encouraged to select courses that will increase competence in a teaching specialty or a supportive social/behavioral science.

## Parks and Recreation <br> Administration

The graduate program in Parks and Recreation Administration is planned to provide advanced preparation for administrative and supervisory level positions within a leisure services delivery system. The program includes electives which give flexibility regarding an individual's specific career goals as a future practitioner in Parks and Recreation Administration.

To enter the program in Parks and Recreation Administration, a student must: (1) have a 3.0 GPA in upper division work or score 1000 or more on the Graduate Record Examination, and (2) possess a bachelor's degree, and have appropriate undergraduate preparation in recreation.

Semester Hours
DEGREE: Master of Science 30-39
Required Core:
21
LEI 5510 Program Administration in Parks and Recreation 3
PAD 6106 Organization Theory and Administrative
Behavior 3
LEI 5700 Physical and Social Bases of Parks and Recreation Planning 3
EDS 5481 Educational Research 3
LEI 5440 Program Development in
PAD 6417 Public Personnel
Parks and Recreation 3
Administration 3
LEI 5595
Seminar in Parks,
Recreation, and Athletic
Management 3
Area of Professional Emphasis: $\quad$ 3-12

$$
\text { LEI } 5907 \text { Individual Study }
$$

LEI 6922* Supervised Field
Experiences in Parks
and Recreation $\quad 3-9$
Advised Electives:
*A student who did not complete an Internship/Field Experience during his or her undergraduate degree curriculum will be required to take LEI 6922. Students with field experience may select advised electives ( 6 hrs.)

## Course Descriptions

## Definition 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; LEI Leisure.

## General Professional Education

## EDF 3827 Schooling in America

3
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

3
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 5287 Instructional Technology: Systems Approach
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


Competencies required for the design, construction or selection, and evaluation of measuring instruments.
EDF 5481 Analysis and Application of Educational Research

3
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

Examination of educational structures and guiding educational objectives in a limited number of both developed and developing countries. Analysis of the responses of national educational systems to common educational issues.
EDF 5720 Latin American Education: An Historical and Contemporary Overview
Historical and current development of Latin American education, and analysis of the principal forces shaping this development.
EDF 5724 African Educational Systems: A Comparative Approach
Contemporary trends and issues of education in selected independent African countries, with historical analysis of colonial educational policies and practices.
EDF 5780 Intercultural Education: National and International Perspectives 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
1-3 (ARR)
The student plans and carries out an independent study project under direction. Topics are to directly relate to content of Education courses. Independent study may not substitute for regular course offerings. Prerequisite: Written permission of the chairman of the Division and the approval of the instructor.
EDF 5955 Field Study Abroad 3-6 (ARR) Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad.
(Continued)

# Educational Leadership and Human Resource Development 

## EDF 6215 Application of Learning Theory

 to Instruction3
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

3
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
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
3
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
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 Genera!
Professional Education
1-3
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
3
Development of competencies for effective selection and utilization of instructional media. Consideration of sources, selection, evaluation, and methods of implementing media.

## ADMINISTRATJON AND SUPERVISION

EDA 6061 The Organization and Operation of Public School Systems

3
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 3
Critical analysis of alternatives to traditional school organization and staffing and possible future alternatives in public education.
EDA 6232 School Law
3
A basic course in school law, students will understand: the law library and its relationship to the school; demonstrate a knowledge about our
legal system; will function in a legal framework; and will identify basic concepts of the law as applied to education.

## EDA 6242 School Finance

Describes and analyzes current and emerging school finance plans; the influence of the courts and federal and state legislation on those plans; special focus on the Florida Education Finance Plan in relation to the development and administration of school system budgets; and the budget responsibilities of the school principal at the school center.
EDA 6510 The Administration of an Elementary School
Development of competencies required to function as the principal of an elementary school, with particular attention to the urban setting.
EDA 6530 The Administration of a Secondary School
Development of competencies required to function as the principal of a secondary school, with particular attention to the urban setting.

EDA 6905 Individual Study in School
Administration/Supervision 1-3
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 1-3
Offers an opportunity for experienced school administrators and supervisors to participate in a problem-oriented workshop.

## EDA 6930 Seminar in School

Administration/Supervision 3 $\ln$-depth study of selected issues and developments in school administration and supervision, including an examination of related research.

EDA 6943 Supervised Field
Experience
1-5 (ARR)
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 most of the required program courses. Also offered each quarter for students in the FIU/UF Cooperative Specialist and Doctoral Programs.
EDG 6250 Curriculum Development 4 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
Development of skills in curriculum evaluation and strategies for improvement of on-going curriculum.

EDS 6050 Supervision in Education
Examines supervision as a process and 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

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

 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 Education: Community/ Institutional Level
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

 Distinguishing various forms of disadvantagement; analyzing these problems and forces which inhibit their solution; critiquing responses to these problems; developing training programs, curricula and materials, recruitment strategies, and evaluation designs.ADE 5260 Organization and Administration of Adult Education 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.

# Educational Leadership and Human Resource Development 

## ADE 5383 Program Development in Adult Education: Activity/ Instructional Level

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 3 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

1-3(ARR)
Specialized intensive study in areas of interest to the student. Subject to approval of program adviser.

ADE 5925 Workshop in Adult Education 1-6 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(ARR)
"Mini-courses" which provide for an examination of special facets of adult education.

## ADE 5945 Supervised Field Experiences

in Adult Education 1-6(ARR) 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 1-3 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.

## PARKS AND RECREATION

## LEI 3437 Program Development in Parks and Recreation Management

 Students will attain competencies in developing objectives, planning a program, and implementing and administering the program.LE1 3524 Personnel Management in Parks and Recreation 3
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 adminstering democratically.

## LEI 3542 Principles of Park and

 Recreation Management3 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 GroundsA 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.

## LE1 3631 Turf Grass Management

3
A practical approach to the care and maintenance of special grasses such as those found on golf courses and other recreational facilities.

## LEI 4590 Seminar in Parks and <br> Recreation Management

3
A discussion of current problems, issues and trends in parks and recreation management, which will help the student develop thase competencies necessary to deal with everyday aspects of particular programs.

## LEI 4700 Programming for Special Populations <br> Course Description:

Principles and practices in planning and implementing programs in special community-group settings. Special emphasis will be placed on a systematic approach through problem-solving techniques.

LEI 4940 Internship I
9 (ARR)
An on-the-job training program designed to enable students to develop those competencies which can only be gained from practical experience.

## LEI 4941 Internship II

12(ARR)
A continuation of LEI 4940 above.

## LEI 5440 Program Development in

 Parks and Recreation3
The development of specific programs in parks and recreation with emphasis on special programs for young children, retardates, handicapped persons, and the elderly.

## LEI 5510 Program Administration in

 Parks and Recreation3A detailed analysis of administrative procedures and responsibilities in connection with parks and recreation facilities and personnel.

## LEI 5595 Seminar in Parks and

 Recreation Administration3A discussion of current problems, issues, and trends in administration of parks and recreation programs.

## LEI 5600 Physical and Social Bases of Parks and Recreation Planning

Course Description:
Concentration on major phases of predesign, design, development, actualization of park and recreation facilities. Course will explore funding, budget, site selection, layout and maintenance.

LEI 5907 Individual Study in Parks and
Recreation Administration 3(ARR)
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

3(ARR)
A practical experience for individuals interested in administrative responsibilities. Permission of the instructor and Department Chairperson required.

## Childhood Education

## Division of Childhood Education

Richard L. Campbell, Professor and Chairperson

Lester B. Brown, Visiting Professor

Edythe Margolin, Professor
George S. Morrison, Professor
Nicholas J. Vigilante, Professor
Arthur D. Dempsey, Associate Professor
Grover C. Mathewson, Associate Professor
Edward M. Reichbach, Associate Professor
Emma W. Rembert, Associate Professor
Zola J. Sullivan, Associate Professor
Joan Friedenberg, Assistant Professor
Sharon W. Kossack, Assistant Professor
Nancy Marshall, Assistant Professor
Alicia Mendoza, Assistant Professor
John Stinson, Jr., Assistant Professor
The Division offers programs at the bachelor's and master's levels. All programs satisfy teacher certification standards of the State of Florida.

## Undergraduate Programs

The Division of Childhood Education offers professional education programs designed to prepare its students to teach in Elementary and Middle Schools. Students desiring certification in Early Childhood Education can meet thal requirement by completing the 9 semester hour area of concentration requirement in Early Childhood Education. The courses in this area of concentration are: EEC 4203, EEC 4301, and EEC 46 I 1.

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 certification in the state of Florida. The typical program of study is outlined below.

## Student Teaching and Field 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 term. 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 term.

An application for student teaching may be obtained from the Coordinator for Student Teaching and Field Experiences of this Division. Specific deadlines for the submission of applications are posted each term at the Division office. Each student should obtain information from the advisor conceming the appropriate term for student teaching.

## Elementary Education, Grades 1-6

## DEGREE: Bachelor of Science

LOWER DIVISION PREPARATION:
Required Courses: AnAssociate of Arts degrce or equivalent preparation in basic general education. If a student has not completed equivalents of the courses noted below, these courses must be completed at the University.
MAE 4810 and MAE 4811 or their equivalents Arl Skills

## Music Skills

Two science courses selected from biological and/or physical sciences. Houcver, effective for students admitted in the Fall Semester, 1982, the science requirement will be: Two science courses: one biological science and one physical science.
Foundations of Education (see General Program Designs).

## UPPER DIVISION PROGRAM:

## Semester Hours

Elementary Education:
EDF 3827 Schooling in America 3
EDG 3321 General Teaching Laboratory 1 3
EDG 3322 General Teaching Laboratory II 3
HLP 3013
Health and Physical Education for Children 3
ARE 3313
Experiencing Art in The Elementary School 3
MUE 3313 Experiencing Music in
RED 4310 The Elementary school 3
Stills I
LAE 4314 Communication Skills II3

RED 4311 Communication Skills III3
$\begin{array}{ll} & \text { Skills III } \\ \text { SSE } 4312 & 3 \\ \text { Inquiry in Social Studies }\end{array}$ in The Elementary School3

MAE 4312 Inquiry in Mathematics in
SCE 4310 Inquiry in Science in The
Elementary School 3
EDE 4455 Evaluation in Elementary School


EDE 4936
Senior Seminar in Elementary Education 3
EDE 4943 Student Teaching 12
Area of Concentration:

Each elementary Education major must complete a study program in an area of concentration consisting of at least 9 semester hours to extend the student's background of information and understanding in a chosen area. A wide variety of choices exists; the student should consult the advisor.
Certification Requirement:
As of July 1, 1980, all students are required to pass a competency test, administered by the Florida State Department of Education, before teaching certification is granted.

## Graduate Programs

The Division of Childhood Education offers masters programs in: Elementary Education, Early Childhood Education and Reading Education. The programs are designed to acquaint teachers with contemporary research and programs, and to refine the teaching skills of persons employed in elementary and middle schools. The completion of the Master's degree qualifies a person for instruction/curriculum leadership positions.

The programs lead to a degree of Master of Science in Education and qualifies a graduate for certification in elementary and middle schools in the State of Florida.

Applicants for admission to programs in Elementary Education and Early Childhood Education must: (1) hold or qualify for Florida certification or its equivalent in elementary education, and (2) satisfy requirements for scholastic aptitude as determined by the graduate admissions standards.

The Master of Science in Reading develops competencies in diagnosis and remediation; production and evaluation of reading materials; teaching of reading $K$ to 12 ; and administration and supervision of remedial, corrective, development, and content area reading programs. The

## Childhood Education

graduate is competent to take leadership in improving reading instruction and preventing reading failure in the schools.

Requirements for admission to the Master's in Reading Program are: (1) completion of an appropriate undergraduate teacher education program, (2) satisfactory scholastic aptitude, as determined by the graduate admission standards and, (3) three years of teaching experience after completion of the undergraduate degree.

A student must file a program of study with the advisor. The program of study must comply with the general master's degree requirements and reflect the career goals of the student. A typical program of study consists of 36 semester hours of course work. Generally, 6 semester hours of graduate study from another accredited college or university may be transferred if applicable to the student's program.

## Elementary Education

DEGREE: Master of Science

Semester Hours

General Professional Education:
EDE 6205 Curriculum Design for Childhood Education 3
EDF 5481 Analysis and Application of Educational Research

EDF 5430
Measurement and Evaluation in Education 3
Psychology (consult advisor) 3
Area of Specialization:
$\begin{array}{lll}\text { EDE } 6225 & \begin{array}{l}\text { Educational Programs } \\ \text { for Older Children }\end{array} & 3 \\ \text { RED } 6155 & \text { lnstruction in Reading } & 3\end{array}$
(Other courses to be selected from among
Elementary course listings) 18

## Early Childhood Education

DEGREE: Master of Science

Semester Hours

General Professional Education: EDE 6205 Curriculum Design for EDF 5481 Childhood Education 3
EDF 5481 Analysis \& Application of Educational Research 3
EDF 5430 Measurement and Evaluation in Education
Psychology (consult advisor)
Area of Specialization:
EEC 6205 Education Programs for Younger Children 3
RED 6305 Instruction in Reading 3
(Other courses to be selected from Early
Childhood course listings)

## Master of Science in Education

*Specialty: Socioeducational Development of Infants and Young Children Under Five
Purpose: This program is planned for personnel in Child Care Centers and for those working with parents, infants and young children in an educational aspect of social service agencies. Child Care agencies, Infant Centers, Day Care, and Nursery Schools for children below the age of five are the emphasis in this program.

It is intended to serve people who work with educational programs in agencies other than public schools.
${ }^{*}$ This program does not qualify students for a teaching credential.

## Semester Hours

A. Core Courses in Education
B. Development of Infants and Young Children 6
C. Education of Parents on Concepts of Childrearing 6
D. Community Services for Parents, Infants and Young Children 9 (Social Work, Health Services, Sociology, Community Health Systems)

36
Students consult with advisor and select courses from various disciplines as designated above.

## Reading

DEGREE: Master of Science

> Semester Hours

## General Professional Education:

EDF 5481 Analysis and Application of Educational Research 3
EDE 6205 Curriculum Design for Childhood Education 3
EDF 5430 Measurement and Evaluation in Education 3
Psychology (consult advisor) 3
RED 6155/
RED 6305 Instruction in Reading 3
Area of Specialization:
(Courses to be selected in consultation
with the advisor) $\quad 18$

Elective: $\qquad$
36
THESIS TRACK (Early Childhood Education/ Elementary Education/Reading Education)*

Semester Hours
EDE 6205
Curriculum Design for
Childhood Education 3
EDF 5481
cont of
EDF 5430
Measurement and
Evaluation in Education
Seminar (EDE 6930, EEC 6932, RED 6931)

# RED 6155/6305 

Instruction in Reading 3
Psychology

Thesis
(Other courses to be selected from among course listings in either early childhood education, elementary education, or reading education, depending upon your major) 9
*This master's thesis track provides a specia foundation for doctoral degree program en trance. (The program as shown may be altere, without further notice.) Admission require ments for this program will be higher than thos for the other masters programs described above Planned for implementation beginning Fal] 1981.

## Graduate Professional <br> Certificate Program in Reading and Language Arts

The Reading/Language Arts Certificate Prc gram enables teachers to extend their comp $\epsilon$ tence in reading and language arts instructior Completion of the Certificate Program qualific the teacher to receive Florida State Certifice tion in Reading, grades K-12. Entrance requir ments are an introductory reading course, a 2.7 grade point average in the last two years college work, and two years of full-time teacl ing. Applicants should apply directly to th Chairperson of the Reading Program.

Required Courses:

| EDF 5430 | Measurement and |  |
| :--- | :--- | ---: |
|  | Evaluation in |  |
| LAE 5414 | Education | 3 |
| Children's Literature | 3 |  |
| RED 6546 | Diagnosis of Reading | 3 |
| RED 6515 | Difficulty <br> Programs of Remediation <br> in Reading | 3 |
| LAE 6355 | Instruction in <br> Language Arts | 3 |

Electives*
Two chosen from language-related courses offered outside of the School of Education 6
*Elective courses are chosen from an approve list in consultation with a Reading Progra: advisor.

## Childhood Education

## Doctoral Programs:

Doctoral programs are presently being planned in: (1) Reading and Language Development, (2) Early Childhood Education, and (3) Elementary Education.

## Course Descriptions

Definition of Prefixes
ARE - Art Education; EDE - Education: Elementary; EEC - Education: Early Childhood; FLE - Foreign Language Education; HLP - Health, 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
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)
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) (3) Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education.

EDE 4925 Workshop in Elementary Education
An opportunity for students to continue to develop competency in a specified area of elementary education. No prerequisites.
EDE 4943 Student Teaching
(12)

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 4455 Evaluation in Elementary
Education
Designed to provide the Childhood Education preservice teacher with knowledge and practical approaches to evaluation in the Elementary School.

EDE 4936 Senior Seminar in Elementary Education
(3)

A seminar designed for student teachers covering topics related to classroom management,
discipline, school community relations, professional problems and issues.
EDE 5905 Individual Study in Elementary Education
(1-3)
Individual investigation in the area of instruc* tion, in elementary education. Permission of instructor required.
EDE 5971 Thesis
EDE 6205 Curriculum Design for Childhood Education
(3)

A study of curriculum theory, construction and evaluation.
EDE 6225 Education Programs for Older Children
Program developed for older children; curriculum trends based on contemporary psychological, educational and sociological research.
EDE 6612 Screening and Assessing for Assignment of Preventative, Developmental and Enrichment Strategies for Primary Children (3) Designed to assist the primary teacher and primary specialist to understand the processes of and methods for screening, assessing and assignment of preventative, developmental and enrichment strategies for primary children.
EDE 6925 Workshop in Elementary Education
(1-3)
An opportunity for teachers to continue to develop competency in a specilied area under the guidance of a specialist in selected fields in elementary education.
EDE 6930 Seminar in Elementary Education (3) Advanced study of critical issues and problems in elementary education.
EDE 6948 Supervised Field Experience in Elementary Education
Field work in education institutions and organizations in elementary education.

EEC 4203 Curriculum and Instruction in Early Childhood Education
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

 ProgramsPhilosophy 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

(3)

Understanding and dealing with critical issues; assessing the progress of contemporary pro-
grams locally and nationally; and recommending solutions for current problems.
EEC 4925 Workshop in Early Childhood Education
An opportunity for students to continue to develop competency in a specified area of early childhood education. No prerequisites.
EEC 5906 Individual Study in Early Childhood Education
Individual investigation in the area of instruction, in preschool and early childhood education. Permission of instructor required.

## EEC 5971 Thesis

EEC 6205 Education Programs for Younger Children
Programs developed for young children; curriculum trends based on contemporary psychological, educational and sociological research.
EEC 6612 Screening and Assessing for Assignment of Preventative, Developmental and Enrichment Strategies for Primary Children
Designed to assist the primary teacher and primary specialist to understand the processes of and methods for screening, assessing and assignment of preventative, developmental and enrichment strategies for primary children.
EEC 6926 Workshop in Early Childhood Education
An opportunity for teachers to continue to develop competency in a specified area under the guidance of a specialist in selected fields in preschool and early childhood education.
EEC 6932 Seminar in Early Childhood Education
Advanced study of critical issues and problems in preschool and early childhood education.
EEC 6948 Supervised Experience in Early Childhood Education
Field work in educational institutions and organizations in preschool and early childhood education.
FLE 4151 Bilingual School Curriculum and Organization
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
Development ol instructional skills, techniques, and strategies for teaching Spanish to nonnative speakers of Spanish in the elementary

## Childhood Education

school. Prerequisites: EDF 3827, EDG 3321, EDG 3322, \& Spanish proficiency.

FLE 4871 Teaching Spanish to Speakers of Spanish
Development of understandings and teaching skills needed in presenting integrated nonofficial 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
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

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
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 proticiency.

## LAE 5414 Children's Literature

Designed to develop a critical analysis of the purposes, strategies for teaching, and evaluation of literature for children. Prerequisites: RED 4310, LAE 4314.
LAE 6305 Instruction in Language Arts
(Early Childhood)
Refinement 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)
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

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
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)
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)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 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)
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) (3) 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

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 II
(3)

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 4925 Workshop in Reading Education

An opportunity for students to continue to develop competency in a specified area of reading education. No prerequisites.

## RED 5447 Analysis and Production Reading Materials

Exploration, creation and evaluation of basic reading materials, commercial and noncommercial. Prerequisite: RED 4310, or equivalent.

RED 5911 Indjvidual Study in Reading (1-3)
Individual investigation in the area of instruction. Permission of instructor required.
RED 5971 Thesis
RED 6155 Instruction in Reading (Elementary)
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
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)
Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.
RED 6335 Reading in the Content Areas
Strategies for developing the reading abilities of students in specific subject areas. Stresses vocabulary and comprehension development, study skills, library usage, reasoning, and motivating reading. Prerequisites: None.

RED 6338 High School Reading Programs (3) Designed to provide competencies for identifying, organizing, teaching, and evaluating secondary reading programs. Corrective and accelerated reading are emphasized. Prerequisites: RED 6155 or RED 6305.
RED 6515 Programs of Remediation in
Reading

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 (3)
Technique for analyzing and clarifying reading difficulties. Prerequisite: RED 4310, or its equivalent.

## RED 6747 Research in Reading

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
An analysis of reading difficulties, through various teaching techniques and programs.

## Psycho-Educational Services

RED 6845 Clinical Procedures in Reading (3)
Supervised experience, resulting in diagnosis, prescription and evaluation of particular children in a clinical setting.

RED 6925 Workshop in Reading
An opportunity for teachers to continue to develop competency in a specified area under the guidance of a specialist in selected fields in reading education.
RED 6931 Seminar in Reading Education (3) Advanced study of critical issues and problems in reading education.
SCE 4310 lnquiry in Science in the Elementary School
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)
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)
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
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)
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)

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

Stephen S. Strichart, Chairperson and Professor<br>Carlos M. Alvarez, Associate Professor<br>Wendy Cheyney, Associate Professor<br>Marisal Gavilan, Associate Professor<br>Daniel A. Kennedy, Associate Professor<br>Philip J. Lazarus, Assistant Professor<br>Luretha F. Lucky, Assistant Professor<br>David E. Nathanson, Professor<br>Howard Rosenberg, Associate Professor<br>Vicki Roulhac, Visiting Assistant Professor<br>Colleen A. Ryan, Associate Professor<br>Donald C. Smith, Professor<br>Jethro W. Toomer, Professor

Programs within the Division of PsychoEducational Services are designed to train professionals to optimally meet the needs of individuals who experience cognitive, academic, and/or social-emotional difficulties that interfere with their progress in school and in the community. Specific competencies are delineated for classroom and resource room teachers of exceptional students, diagnostic and consultant teachers, school and community counselors, and school psychologists.

The various programs emphasize the blending of research and theory with practical applied experience, and consider the urban, multicultural nature of the University community, as well as more general national trends within specific fields. All programs involve extensive fieldwork with accompanying seminars. Independent study courses are available to allow students to pursue specialized interests and needs.

In addition to its regular programs, the Division of Psycho-Educational Services offers experiences through federally funded programs designed to provide specialized skills in vocational education for the handicapped and to develop competencies for personnel working with the severely/profoundly handicapped, and culturally and linguistically different exceptional individuals.

## UNDERGRADUATE PROGRAMS:

The undergraduate special education programs utilize a competency-based and fieldcentered training model. Programs lead to Florida Certification in Specific Learning Disabilities. Emotional Disturbance, and Mental Retardation. A student may elect a major in any one of the three areas. Dual majors are not permitted.

Current philosophies of special education and trends in service delivery systems reflected in the programs stress that all handicapped children are entitled to a free and appropriate public education regardless of the severity of their handicap. Furthermore, all handicapped chil-

dren should be educated in the least restrictive environment and mainstreamed to the greatest extent possible. Additionally, special educators must be able to provide services to pre-school children and adults as well as students who reflect multi-cultural and multi-lingual backgrounds. All professional services to exceptional students must reflect statutory and case law requirements.

The undergraduate special education programs emphasize the development of the following competencies as demonstrated in both the University and field settings:

1. Identifying and diagnosing students with learning and behavior problems.
2. Prescribing and implementing appropriate individual educational plans to meet these problems.
3. Effecting appropriate instruction for children with learning and behavior problems.
4. Effectively managing classroom behavior of children with these problems.
Diagnostic-prescriptive and management skills are demonstrated with students who range from pre-school through adulthood, are mild, moderate, severe, and profoundly handicapped, and reflect multi-cultural, multi-lingual urban backgrounds.

Finally, special education undergraduate students are prepared to effectively re-integrate into the mainstream of education those students whose learning and behavior needs would be most appropriately enhanced in the regular classroom setting.

## DEGREE: Bachelor of Science

## LOWER DIVISION PREPARATION:

Required Courses: AnAssociate of Arts degree or equivalent preparation in basic general education. If a student has not completed the courses noted below, these courses must be completed at the University:

MAE 4810 and MAE 4811 or their equivalents.
Foundations of Education (See General Program Design for School of Education)

# Psycho-Educational Services 

## UPPER DIVISION UNDERGRADUATE SPECIAL EDUCATION PROGRAM

| Required Courses Semester Hours |  |
| :---: | :---: |
| EDF 3827 | Schooling in America 3 |
| EDG 3321 | General Teaching Lab I 3 |
| EDG 3322 | General Teaching Lab ll 3 |
| EEX 3010C | Introduction to |
|  | Exceptional Children |
|  | \& Youth 3 |
| SPA 3000 | Introduction to Language |
|  |  |
|  | Communication |
|  | Disorders 3 |
| EEX 3221 | Assessment of |
|  | Exceptional Children |
|  | \& Youth 3 |
| EEX 3228 | Educational |
|  | Assessment Lab 2 |
| EEX 3202 | Foundations of |
|  | Exceptionality 3 |
| EEX 4241 | Academic Skills for |
|  | Exceptional Children 3 |
| EMR 4360 | Educational Planning for |
|  | the Mentally Retarded |
| $\begin{gathered} \text { OR } \\ \text { ELD } 4322 \mathrm{C} \end{gathered}$ |  |
|  | Educational Planning for |
|  | Specific Learning |
|  | Disabilities 3 |
| OR |  |
| EED 4227C | Educational Planning for |
|  | Emotional Handicaps |
| EEX 4601 | Behavioral Approaches to |
|  | Classroom Learning 13 |
| EEX 4611 | Behavioral Approaches to |
|  | Classroom Learning II 3 |
| RED 4310 | Communication Skills I 3 |
| LAE 4314 | Communication |
|  | Skills II 3 |
| MAE 4312 | Inquiry in Mathematics in |
|  | the Elementary School 3 |
| ELD 4050 | Introduction to Learning |
|  | Disabilities |
| OR <br> EED 4011 |  |
|  | Introduction to the |
|  | Emotionally |
|  | Handicapped 3 |
| OR |  |
| EMR 4011 | Introduction to the |
|  | Mentally Retarded |
| EEX 4861 Student Teaching 12*Elective Course |  |
|  |  |
| One course with advisor's consultation 3 |  |
|  | mester Hours 62 |

Note: Several of the courses in the undergraduate special education program require field work in the community during daytime hours. Permission to student teach is contingent upon advisor's approval based on completion of all other requirements specified in the program.
*Subject to approval of University Curriculum Committee.

## GRADUATE PROGRAMS:

The Division of Psycho-Educational Services offers master's degree programs that prepare individuals to teach exceptional children and youth, that extend the skills of teachers of these children, and that train school and community counselors and school psychologists to serve in school and community settings. Emphasis is given to the development of assessment skills, prescriptive programming skills, behavior management techniques, and consultant and group leadership skills.

Program applicants are required to file an application with the Office of Admissions. All applicants must present GRE scores for the Verbal and Quantitative sections, three letters of recommendation (at least one from academic sources and one from work or volunteer experience) and an autobiographical statement. Candidates are admitted by action of the Division's Graduate Admissions Committee. Criteria for program acceptance include GRE scores, undergraduate grade point average during the junior and senior years, work and volunteer experience, quality and source of letters of recommendation, and the candidate's career aspirations and goals. A combined Verbal-Quantitative GRE score of 1000 and/or GPA of " B " or better during the undergraduate junior and senior years is required for a candidate to be admitted via regular procedures. Where these criteria are not met, candidates may be admitted by special action of the Division's Graduate Admissions Committee and the Dean's Office.

Programs are offered in Diagnostic Teaching (Mental Retardation, Emotional Handicaps, Specific Learning Disabilities), Education of the Culturally and Linguistically Different Exceptional Individual, Counselor Education (Schoo! Counseling and Community Counseling) and School Psychology. All programs preparing school personnel are approved by the State of Florida and allow students completing the program to be eligible for certification by the State.

Applicants to the diagnostic teaching program are required to hold a valid Florida Teaching Certificate in any area of instruction. Individuals who do not hold Florida certification can become eligible for admission if they complete all coursework required for a teaching certificate in any area of education, except for the internship. If admitted to the program in diagnostic teaching, after completing these courses, such individuals would fulfill an intership in a setting related to their program at a point in their program at which their advisor felt they had completed sufficient coursework and experiences in the education of exceptional students.

## DIAGNOSTIC TEACHING

The major competencies of the diagnostic teacher are an extension and refinement of those developed by the student in the undergraduate
special education curriculum: a) Assessment of learning styles through observation and ongoing monitoring techniques; b) application of behavioral approaches to the building, monitoring, and remediation of classroom behavior; c) communication of information conceming 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; h) program evaluation.

The program of study is $30-57$ semester hours, depending upon the student's background. Areas of specialization include: Mental Retardation, Emotional Handicaps, and Specific Learning Disabilities.

The program leads to certification in the state of Florida in either Mental Retardation, Emotional Disturbance, or Specific Learning Disabilities.
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 Intemational University. A student with an undergraduate major in Special Education from another institution must plan a program with an academic advisor to insure having the entry skills for this program.

Semester Hours
EDF 5481 Analysis and Application of Educational Research
EEX 6846 Diagnostic Teaching: Advanced Practicum
EGC 6616 Program Evaluation in Pupil Personnel Services
EEX 6020 Professional Problems:
Special Education
EEX 6211 Assessment of Behavior I
EEX 6230 Diagnostic Teaching: Assessment of Behavior II
EMR 6852 Advanced Theory \& Practice: Mental Retardation
OR
ELD 6323 Advanced Theory \& Practice: Specific Learning Disabilities
OR
EED 6226 Advanced Theory \& Practice: Emotional Handicaps

## Psycho-Educational Services

EEX 6863 | Supervised Field |
| :--- |
| Experience in |
| Special Education |

Eleclives (with consultation of advisor) 6
Semester Hours
OUT OF FIELD MAJORS
A student eligible for or holding a Teaching
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 or work experi-
ence, the student will be asked to complete one
or more of the following courses in addition to
those listed above for In Field Majors.

| ELD 4050 | Semester Hour |
| :---: | :---: |
|  | Introduction to Lea |
|  | Disabilities |
| OR |  |
| EED 4011 | Introduction to |
|  | Emotional Handicaps 3 |
| OR <br> EMR 4011 |  |
|  | Introduction to Mental |
|  | Retardation 3 |
| EMR 4360 | Educational Planning for the Mentally Retarded |
| $\begin{gathered} \text { OR } \\ \text { ELD } 4322 \mathrm{C} \end{gathered}$ |  |
|  | Educational Planning for |
|  | Specific Learning |
|  | Disabilities 3 |
| OR |  |
| EED 4227C | Educational Planning for |
|  | Emotional Handicaps |
| EEX 6051 | Exceptional Children |
|  | and Youth 3 |
| EGC 6707 | Applied Behaviorial |
|  | Analysis in Education 3 |
| EEX 6612 | Diagnostic Teaching: |
|  |  |
|  | Behavioral Models |
| EEX 6227 | Diagnostic Teaching: |
|  | Educational |
|  | Assessment 3 |
| EEX 6106 | Diagnostic Teaching: |
|  | Acquisition of Language |
|  | and Reading Skills 3 |
| EEX 6203 | Advanced |
|  | Psychological-Socia! |
|  | Aspects of |
|  | Exceptionality |
| EEX 4861 | Student Teaching 12* |

## EDUCATION OF THE CULTURALLY AND LINGUISTICALLY DIFFERENT EXCEPTIONAL INDIVIDUAL

This is a competency based multidisciplinary Master's Degree Program in Special Education with emphasis in Bilingual Education. The purpose of this program is to train teachers to meet the needs of the linguistic minority individuals who exhibit discrepancies in growth and
development due to one or more handicapping conditions. Federal stipends are available.

The entrance requirements are:
a. A Bachelor or Master's Degree in an area of education.
b. Teaching Certification in the State of Florida or its equivalent.
c. Recommendations from any County Board of Education (appropriate supervisor).
d. Evaluation by the Florida International Univeristy faculty, so that preference will be given to candidates who have demonstrated in the past superior scholastic and practical performance.
e. A commitment to intensive practicum experience.
f. Residence and employment in the Florida International University geographic area.
g. Working in a bilingual setting (a class with $50 \%$ or more bilingual students.)
Coursework:
The proposed coursework for this program will follow the In Field and Out of Field models described for the program in. Diagnostic Teaching. In addition, coursework in the following areas will be programmed individually according to the student's needs and experiences in the area of bilingual education.

Psychology of Language - Bilingualism Bilingual Curriculum Development Counseling the Hispanic Student Teaching Reading to Bilingual Students

Immersion (Non-Hispanic Individuals).

## COUNSELOR EDUCATION:

## General Description

The program in counselor education requires 60 semester hours, or the equivalent of four academic semesters, and leads to the Master of Science in Education degree. The program follows a competency based model, the early part of which is largely generic in nature and is concerned with the development of knowledge and skills in the areas of individual and group counseling, consultation, preventive mental health, educational-vocational development, client appraisal, systems intervention, and model program organization and evaluation. The latter part of the program is more differentiated, and enables a specialization in either community or school counseling. Both areas of specialization meet the standards recommended by the American Personnel and Guidance Association, and specialization in school counseling qualifies the program graduate for the Florida School Guidance Certificate.
The prospective student should be advised that during the latter part of the program a substantial amount of time is spent in field work to meet practicum and internship requirements. The practicum requirement is the equivalent of one work day per week spent in a field placement
during one academic semester followed by an internship consisting of a forty hour work week in a field placement for the duration of one academic semester. The student should plan for this field work to be during the day, rather than during evening hours.

All students entering the graduate program with an undergraduate degree in an area other than education must enroll for courses in general professional education as well as a course in reading required by the Florida State Department of Education in order to meet state certification requirements in Florida.

The student should consult his/her advisor with reference to these course selections.
DEGREE: Master of Science
${ }^{* *}$ General Professional Education:
Semester Hours
EDF 5481 Analysis and Application of Educational Research3

Area of Specialization:
EGC 5405 Educational and Vocational Guidance
EGC 6707 Applied Behavior Analysis in Education 3
EGC 6708 Advanced Counseling and Consultation: Theory and Practice 3
EGC 6725 Human Interaction Laboratory

3
EGC 6726 Human Interaction Laboratory II
***EGC 6709 Human Interaction III 3
EGC 6616 Program Evaluation in Pupil Personnel Services 3

EGC 6203 Measurement and Appraisal in Counseling 3
EGC 6822 Advanced Practica in Counseling \&
Consultation 3
EGC 6605 Professional Problems-
Counselor Education 3
EGC 6676 Supervised Experience in Counselor Education 10 Exceptional Children and Youth

3
**The student should consult with the advisor to establish whether additional requirements must be met in general professional education (Foundations of Education, General Methods).
***Required only in community counseling.
****Required only in school counseling.
Electives:
17
TOTAL
60
The student should consult with the academic advisor for guidance in selecting electives appropriate for specialization in school or community counseling.

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## SCHOOL PSYCHOLOGY:

The program in School psychology requires 60 semester hours. 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 ease management; program development and evaluation; inservice education; administrative consultation; and community development.
DEGREE: Master of Science
Semester Hours
EDF 5481 Analysis and Application of Educational Research

EGC 5405
Introduction to Counseling
EGC 6725 Human Interaction 1

3
EGC 6726 Human Interaction II 3
EGC 6707
Applied Behavioral Analysis in Education 3
EGC 6708 Advanced Counseling and Consultation: Theory and Practice3

EEX 6227 Diagnostic Teaching: Educational Assessment 3
*EEX XXXXL Educational Assessment Laboratory 3
*SPS 6805 Professional Problems and lssues in School Psychology
*SPS XXXX Psycho-Educational Assessment I: Intellectual
*SPS XXXXL Psycho-Educational Assessment Laboratory 2
*SPSXXXX Psycho-Educational Assessment 11: Process 3
-SPSXXXXL Psycho-Educational Assessment II: Laboratory 2
*SPS XXXX Psycho-Educational Assessment III: Personality3
*SPSXXXXL Psycho-Educational Assessment 111: Laboratory 2
EGC 6616 Program Evaluation in Pupil Personnel Services 3
EGC 6678 Supervised Field Experience - School Psychology $\quad 10$ Semester Credits 54
Electives are required depending on the students background (minimum of 6 elective semester hours)

Semester Hours
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.
*Subject to Approval of the University Curriculum Committee.

## CERTJFICATE PROGRAMS

In addition to academic degree programs, the Division of Psycho-Educational Services offers certificate programs which lead to either state teaching certification or a University issued professional certificate.

The Division currently offers the following certificates:
PROFESSIONALCERTIFICATE PROGRAM
1N SPECIFIC LEARNING DISABILITIES AND EMOTIONAL DISTURBANCE

## ENTRANCE REQUIREMENTS:

In order to meet the needs of those teachers not wishing to enter a Master's degree program, but who wish to complete state certification in a sequential and planned program of study, Florida International University has established two Professional Certificate Programs: 1) Specific Learning Disabilities, and 2) Emotional Disturbance (Handicapped). The entrance requirement is a certificate in Elementary Education. The program consists of up to 25 semester hours depending on prior coursework.

In the event a student enrolled in the Professional Certificate Program elects to apply coursework taken towards meeting the requirements for a Master of Science degree, the student will need to follow the regular entrance procedures for the Master's degree program.
SPECIFIC COURSES REQUIRED:
Specific Learning Disabilities:
EEX 6051 Exceptional Children and
EEX6106 Youth $\quad$ Diagnostic Teaching: Acquisition of Language and Reading Skills
EEX 6227 Diagnostic Teaching: Educational Assessment
EGC 6707 Applied Behavior Analysis in Education
EEX 6211 Assessment of Behavior ]
ELD 6323 Advanced Theory and Practice: Specific Leaming Disabilities
ELD 4322C Educational Planning for Specific Learning Disabilities
Emotional Disturbance:
EEX 6051 Exceptional Children and Youth
EEX 6106 Diagnostic Teaching: Acquisition of Language and Reading Skills
EEX 6227 Diagnostic Teaching:
EGC 6707 Applied Behavior Analysis in Education

$$
\text { EEX } 6211
$$

EEX 6612
Assessment of Behavior I
EEX 6612 Diagnostic Teaching:
Systems \& Behavior Models
EED 4227C Educational Planning for Emotional Handicaps
A Professional Certificate Program is under development in the area of Mental Retardation.

## VOCATIONAL EDUCATION FOR THE HANDICAPPED

PROFESSIONALCERTIFICATE PROGRAM
Purpose:
Vocational Education for the Handicapped is a non-degree Professional Certificate Program offered through the School of Education. The project represents a unique cooperative effort between the Divisions of Vocational Education and Psycho-Educational Services. Instruction in the program focuses on training professionals in vocational skill areas to more appropriately serve the needs of handicapped adolescents and young adults.

Students who are pursuing, or have completed, either Florida Teacher Competency and Certification, or the bachelor's or master's degree in vocational education or special education are encouraged to enroll in this professional certificate program. Program competencies were selected to enhance professionals' knowledge, skills, and attitudes in the following roles: instructional, diagnostic-prescriptive, behavior manager, advocacy, referral agent, and counselor. These professional roles are represented by 124 competencies which are contained in 6 courses or 18 semester hours of instruction. Four of these six courses are required courses and two are electives.

The Division of Personnel Preparation in the Office of Special Education has financially supported this program with a Federal Grant for the past five years. Subsequently, it has been possible to provide financial assistance in the form of a Federal stipend to selected applicants. Students interested in applying for financial assistance should seek further information between January 15 and March 15 of any calendar year.
PROFESSIONALCERTIFICATE PROGRAM IN SEVERELY / PROFOUNDIY HANDICAPPED.
Under development and implementation.

## GUIDANCE CERTIFICATE PROGRAM

## Purpose:

To provide a means of obtaining the Florida Guidance Certificate (K-12) for those who already possess a Master's degree in Education and do not wish to pursue a second Master's degree.

# Psycho-Educational Services 



Note: Not more than 6 semester hours from another institution may be used to satisfy these requirements.

## INSTITUTE IN THE CREATIVE AND PERFORMING ART FOR THE EXCEPTIONAL

The Institute in the Creative and Performing Arts for the Exceptional provides significant arts experiences for exceptional children and adults working with community arts organizations. Research in the arts are an integral part of the institute's activities.

## 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: Men* tal Retardation; SPA - Speech Pathology and Audiology; SPS - School Psychology.

## SPECIAL EDUCATION:

EED 4011 Introduction to the Emotionally
Handicapped
Significant concepts in relation to the learning and adjustment characteristics of the emotion-
ally handicapped individual. Prerequisites: EEX 3010C, EEX 3202.

## EED 4227C Educational Planning for Emotional Handicaps

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: Emotional Handicaps

Major theories in the area of behavior disorders, and skills in the application of these theories to education.

## EED 6937 Seminars in Special Education

(3, repeatable to 9 )
A. Topics in Mental Retardation. B. Topics in Specific Learning Disabilities C. Topics in Behavior Disorders.

## EEX 3010C Introduction to Exceptional

 Children and YouthSignificant concepts in relation to the learning and adjustment problems of exceptional children and youth. Field experiences required.

EEX 3202 Foundations of Exceptionality
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
Competencies in asssessment of the basic modalities of learning (visual, auditory, haptic and perceptual motor processes), and the language areas of reading, writing, spelling and arithmetic. Corequisite: EEX 3228.

EEX 3228 Educational Assessment Lab
Practical application experiences with educational, process, and informal assessment instruments and procedures. Corequisite: EEX 3221.

## EEX 4040 Exceptional Children in the

Mainstream of Education
Characteristics of mildly handicapped children and techniques of identifying, assessing, managing and instructing them in the regular classroom.

EEX 424J Academic Skills for Exceptional Children
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: EEX 3010C, SPA 3000, EEX 3221, RED 4310.

## EEX 4248 Educational Programs for the Handicapped at the <br> Secondary Level

Analysis and application of instruction methodology and service delivery models for handicapped students in secondary school programs.
EEX 4601 Behavioral Approaches to Classroom Learning
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 Behavorial Approaches to

 Classroom Learning IIConcepts 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

A field experience in a program for exceptional children, demonstrating competencies learned throughout the program.

EEX 4905 Individual Study in Special
Education
(1-6)
Concepts or competencies contracted for between an undergraduate student and an instructor in accordance with the student's individual needs.
EEX 6020 Professional Issues in Special Education
Current issues in the special education profession, with focus on changing trends, delivery of service, legislation, and role diversification. Emphasis is placed on articulation of a personal professional role model.

EEX 6045 Mainstreaming Exceptional
Children: Issues and Techniques
Awareness of issues underlying the movement to mainstream mildly handicapped students. Techniques and procedures for effective mainstreaming of these students.
EEX 6051 Exceptional Children and Youth (3) Significant concepts in relation to the learning and adjustment problems of exceptional children and youth. Field experience and graduate project required.
EEX 6065 Educational Programs for
Secondary Level
Exceptional Students
Development of Curriculum, methodology, and program designs for the education of exceptional students in secondary school settings.

# Psycho-Educational Services 

## EEX 6106 Diagnostic Teaching: Acquisition of Language and Reading Skills <br> (3)

Concepts in acquisition and development of language and reading skills.
EEX 6211 Assessment of Behavior I
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.
EEX 6203 Advanced Psychological / Social Aspects of Exceptionality
Advanced psychological and social aspects of handicapping conditions in relationship to classroom behavior and community functioning.

EEX 6227 Diagnostic Teaching: Educational Assessment
(3)

Skill in application of assessment theory to classroom diagnosis and to the development of instructional objectives.
EXX 6230 Assessment of Behavior 11
Skill in the application of informal criterion referenced assessment to classroom diagnosis and to the development of instructional objectives.
EEX 6612 Diagnostic Teaching: Systems and Behavioral Models
Skills in the application of diagnostic data to various instructional strategies and behavioral models.
EEX 6846 Diagnostic Teaching:
Advanced Practicum
Application of diagnostic teaching models to individualized, remedial and compensatory instructional programs.

## EEX 6863 Supervised Field Experience in Special Education

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
(1-6)
Concepts or competencies contracted for by graduate students with an instructor.
EEX 6927 Workshop in Special Education (1-6) Selected competencies in special education, developed in short-term, intensive workshops.

## ELD 4050 Introduction to Learning

 DisabilitiesSignificant concepts in relation to the learning and adjustment characteristics of the learning disabled individual. Prerequisites: EEX 3010C, EEX 3202.
ELD 4322C Educational Planning for Specific Learning Disabilities
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 Leaming Disabilities
Major concepts in the area of specific learning disability, and skills in the application of these concepts to education.
EMR 4011 Introduction to the
Mentally Retarded
Significant concepts related to learning, adjustment, and characteristics of the mentally retarded citizen. Prerequisites: EEX 3010C, EEX 3202.

EMR 4360 Educational Planning for the Mentally Retarded
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
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
(3)

Skills in assessing and classroom programming for language development and for various speech and language disorders of children.

## PUPIL PERSONNEL SERVICES

EGC 5305 Educational and Vocational Guidance
Concepts and skills pertaining to vocational development, information systems, career education programs, educational-vocational counseling, and socio-psychological influences on career development.
EGC 5405 Introduction to Counseling
Major theoretical concepts in counseling, competencies in relationship-building, interviewing, role-playing, simulation and micro-counseling.
EGC 6203 Measurement and Appraisal in Counseling
Concepts and skills related to the use of tests and other appraisal procedures in counseling. Particular emphasis on career and vocational choice processes. Laboratory experiences included.
EGC 6248 Advanced Practica:
Psycho-Educational Assessment and Consultation
Advanced competencies in psycho-educational assessment.

EGC 6255 Assessment of Behavior II (3)
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 XXXX* Theories in Group Dynamics (3) Systematic examination of various theories and relevant research used in study of small group phenomena. Prerequisites: EGC 6725, EGC 6726, EGC 6709.
EGC XXXX* Group Counsling
Exploration of roles and function of group counseling in meeting client needs in a variety of settings. Prerequisites: EGC 5405, EGC 6725, EGC 6726.

## EGC XXXX* Advanced Group Development

 LaboratoryDevelopment of advanced skills in the analysis and understanding of group process, function and structures through actual observation of an ongoing group. Prerequisites: EGC 6725, EGC 6726.

## EGC 6605 Professional Problems -

Counselor Education
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 ServicesEvaluation skills in the student's area of specialization, including competencies in designing evaluation proposals and conducting an actual program evaluation. Prerequisite: EDF 5481.
EGC 6676 Supervised Field Experience in Counselor Education
Demonstration of the full range of competencies learned throughout the program in Counseling. Internship placements include a variety of field settings.

## EGC 6678 Supervised Field Experience in School Psychology

Demonstration of the full range of competencies learned throughout the program in School Psychology. Internship placements include a variety of field settings.
EGC XXXX* Principles of Design in Group
Intervention: Role of the Consultant
Focuses on role of leader or trainer in complex training design in leadership and human relations training. Emphasis on diagnostic and behavioral skills that help groups become more effective. Prerequisites: EGC 6725, EGC 6726, EGC XXXX* ${ }^{*}$ EGC XXXX*

# Subject Specializations 

EGC XXXX* Group Process in Organization (3) In-depth analysis of planned change and the social psychological phenomena effecting organizational functioning. Prerequisite: EGC 6725, EGC 6726, EGC 6709.

## EGC 6707 Applied Behavior Analysis in Education

Concepts and skills in using behavior modification: functional analysis of behavior, precision teaching, token economies, contingency contracting, parent and/or teacher consultation.

EGC 6708 Advanced Counseling and Consultation: Theory and Practice
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 1II: Organizational Consultation Theoretical concepts and skills in organizational development and change. Competencies in systems diagnosis and assessment, consultation, agenda setting, team building, decisionmaking and feedback. Prerequisite: EGC 6726.
EGC 6725 Human Interaction I: Group Process Laboratory
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
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
Advanced competencies in counseling and consultation.
EGC 6905 Individual Study in Pupil Personnel Services
(1-6)
Competencies contracted for between a student and an instructor in accordance with the student's individual needs.
EGC 6925 Workshop in Psycho-Educational Services
(1-6)
Selected competencies in counselor education or school psychology, developed in short-term, intensive workshops.
EGC 6936 Seminars in Pupil Personnel
Services
( 3 , repeatable to 9 )
Special topics in relation to counseling or school psychology.

SPS XXXX* Psycho-Educational Assessment I: Intellectual
Competencies in the assessment of intellectual ability and adaptive behavior in children. Corequisite: SPS XXXXL*.
SPS XXXXL* Psycho-Educational Assessment I: Lab
(2)

Practical skills in the assessment of intellectual ability and adaptive behavior in children. Corequisite: SPS XXXX*.
SPS XXXX* Psycho-Educational Assessment II: Process
Competencies in the assessment of psychoeducational processes in children and their relationship to intellectual ability. Corequisite: SPS XXXXL**

SPS XXXXL* Psycho-Educational Assessment II: Lab
(2)

Practical skills in the assessment of psychoeducational processes in children. Emphasis on assessing disorders in the visual, auditory, haptic, language and sensory integration areas. Corequisite SPS XXXX**
SPS XXXX* Psycho-Educational Assessment
III: Behavior
(3)

Competencies in behavioral and personality assessment of students within the school setting. Emphasis on projective testing, and behavioral observations. Corequisite: SPS XXXXL*
SPS XXXX* Psycho-Educational Assessment

> III: Lab

Practical skills in projective and behavioral assessment of students within the school setting. Corequisite: SPS XXXX*.
SPS 6805 Professional Problems in School Psychology
Competencies in regard to the development, role and function of school psychologists. General orientation and legal and ethical issues included.
*Subject to approval of the University Curriculum Committee.

## Division of Subject <br> Specializations

Richard Alterman, Assistant Professor, Global Education
Judy A. Blucker, Associate Professor, Physical Education
Ida F. Chadwick, Associate Professor, Physical Education
Jack Llewellyn, Associate Professor, Physical Education
Richard Lopez, Associate Professor, Physicat Education
C. Edwin McClintock, Associate Professor, Mathematics Education


Luis A. Martinez-Perez, Associate Professor, Science Education
George B. Pearson, Professor, Physical Education
Clement Pennington, Associate Professor, Art Education
Robert Shostak, Professor, English Education
John J. Staczek, Associate Professor, Modern Language Education/TESOL
Robert F. Testa, Associate Professor, Music Education
Jan L. Tucker, Professor, Social Studies Education, Acting Chairperson
Michael J. Wagner, Associate Professor, Music Education

The Division offers bachelor's degree programs for the preparation of teachers in secondary subject areas and teachers of art, music, and physical education in grades $1-12$. It also 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

LOCATION: Tamiami Campus Only
A student enrolled in the Division may pursue the following programs:
General: Grades 1-12
Art Education
Music Education
Physical Education
Secondary Education: Grades 7-12
Biology Education Mathematics Education
Chemistry
Education
English Education
Modern Language Education

History Education
Physics Education
Social Studies Education
Each student major in the Division, after being admitted to the University, is assigned an advisor in the teaching field who will assist the student in constructing a program of study. The program of study must comply with the Univer-
(Continued)

# Subject Specializations 

sity'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 idenify 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 semester. 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 teaching during the Fall or Spring semester of the senior year. There is no student teaching in the Summer semester.

Application for student teaching is the responsibility of the student. Necessary forms may be obtained from the Office of Student Personnel Services in the School of Education, and should be returned to that office early in the semester following completion of 90 semester hours of credit and no later than 1 semester prior to the time of registration for student teaching.

The Division of Subject Specializations is presently reviewing all programs in preparation for the change to the semester system. All changes will be published separately in the Summer of 1981. The division programs described in this catalog will be in effect through Summer Quarter, 1981.

## Art Education: <br> Grades 1-12

## 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 ( 6 semester hours). If foundations requirements are not met at the lower
division, they must be taken in addition to the 60 semester hours required in the student's upper division program.

UPPER DIVISION PROGRAM: Semester Hours

| Subject <br> ARH 4atter | Specialization: <br> Contemporary Art, | 27 |
| :---: | :--- | :--- |
|  | Art History Elective | 6 |
| ART 3510C | Painting | 3 |
| ART 3702C | Sculpture | 3 |
| ART 3150C | Jewelry and Metals | 3 |
| ART 3401C | Printmaking | 3 |
| ART 3601C | Photography | 3 |
| ART 3111C | Ceramics | 3 |
| Art Electives: | 6 |  |
| Professional Education: | 30 |  |
| EDF 3827 | Schooling in America | 3 |
| EDG 3321 | General Teaching <br>  <br> Laboratory I | 3 |
| EDG 3322 | General Teaching <br>  <br>  <br> Laboratory II | 3 |

Reading Requirement:
RED 4325 Special Teaching Laboratory: Reading 3
Special Methods and Student Teaching: A student must complete the 6 semester 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

3
(minimum prerequisite or corequisite of 18 hours required in subject matter specialization)

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

3
ARE 4940 Student Teaching in Art 9 Advisor Approved Electives:

## Music Education: Grades 1-12

## DEGREE: Bachelor of Science LOWER DIVISION PREPARATION:

Required Courses: An Associate of Arts degree in Music or the following recommended courses: applied, 8 semester hours; history, 4 semester hours; organizations, 4 semester hours; techniques secondary instruments, 4 semester hours; theory, 12 semester hours; sight-singing, 4 semester hours; Foundations in Education, 6 semester hours. If Foundations in Education requirements are not met at the lower division,
they must be taken in addition to the 60 semester hours required in the student's upper division program.
UPPER DIVISION PROGRAM:
Semester Hours
Subject Matter Specialization:
Applied Music (Four semesters;
t/2 hour lessons on major instrument each semester)

Basic Conducting
Beginning lnstrumental or Choral
Begining his or Choral
Form and Analysis 3
Counterpoint 3
Guitar
Twentieth Century Music History 3
Orchestration or Choral Techniques
Organizations (4 semesters)
Professional Education:
EDF 3827 Schooling in America
EDG 3321 General Teaching Laboratory I
EDG 3322 General Teaching Laboratory ll
Reading Requirement:
RED 4325 Special Teaching Laboratory: Reading
Special Methods and Student Teaching: A student must complete the 6 semester 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 semesters.

$$
\begin{array}{ll}
\text { MUE } 3332 & \begin{array}{l}
\text { Special Teaching } \\
\text { Laboratory 1: Music }
\end{array}
\end{array}
$$

MUE 4341 Special Teaching Laboratory II: Music (K-12)
(Minimum prerequisite or corequisite of 20 hours required in subject matter specialization)

$$
\begin{array}{ll}
\text { MUE } 4940 & \begin{array}{l}
\text { Student Teaching } \\
\text { (Elementary \& } \\
\text { Secondary) }
\end{array}
\end{array}
$$

Advisor Approved Electives:
Sufficient number of hours to accrue to a total of 60 semester hours at Florida International University.

## Biology Education: Grades 7-12

DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: 8 semester hours of biology; 8 semester hours of general chemistry; 8 semester hours of general physics; mathematics through analytical geometry; and Foundations of Education ( 6 semester hours). If foundations
(Continued)

# Subject Specializations 

requirements are not met at the lower division they must be taken in addition to the 60 semester hours required in the student's upper division program.
UPPER DIVISION PROGRAM:

| Semester Hours |  |  |
| :---: | :---: | :---: |
| Subject Ma | Specialization: | 32 |
| Genetics |  | 3 |
| Biochemis |  | 5 |
| Molecular | logy | 5 |
| Developme | 1 Biology | 3 |
| Electives i | iology* | 6 |
| Organic Ch | istry | 5 |
| Quantitati | Analysis | 5 |
| Professional | ucation: | 24 |
| EDF 3827 | Schooling in America | 3 |
| EDG 332I | General Teaching Laboratory 1 | 3 |
| EDG 3322 | General Teaching Laboratory II | 3 |
| Reading Requirement: |  |  |
| RED 4325 | Special Teaching Laboratory: Reading | 3 |
| Special Methods and Student Teaching: |  |  |
| A student must complete six ( 6 semester) |  |  |
| 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 4944 in consecutive |  |  |
| mesters. |  |  |

SCE $4330 \quad \begin{aligned} & \text { Special Teaching } \\ & \text { Laboratory: }\end{aligned}$ Science (minimum prerequisite or corequisite of 20 hours required in subject matter specialization)

3
SCE 4944 Student Teaching 9
Advisor Approved Electives:
Sufficient number of hours to accrue to a total of 60 semester hours at Florida International University.
*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

DEGREE: Bachelor of Science LOWER DIVISION PREPARATION:
Required Courses: 8 semester hours of general chemistry; 8 semester hours of general physics; mathematics through Calculus I; and Foundations of Education ( 6 semester hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 60 semester hours required in the student's upper division program.
Recommended Courses: Organic Chemistry

## UPPER DIVISION PROGRAM:



Reading Requirement:
RED 4325 Special Teaching Laboratory: Reading 3
Special Methods and Student Teaching: A student must complete six ( 6 semester) hours of foundations courses and all core courses before enrolling in 4000 level special methods courses. A student must enroll for SCE 4330 and 4944 in consecutive semesters.

$$
\begin{array}{ll}
\text { SCE } 4330 & \begin{array}{l}
\text { Special Teaching } \\
\text { Laboratory: }
\end{array}
\end{array}
$$

Science (minimum prerequisite or corequisite of 20 hours required in subject matter specialization) 3
SCE 4944 Student Teaching 9
Advisor Approved Electives: 9-11
Sufficient number of hours to accrue to a total of 60 semester hours at Florida International University.

## English Education: Grades 7-12

## 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 ( 6 semester 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 60 semester hours required in the student's upper division program.
UPPER DIVISION PROGRAM:
Semester Hours
Subject Matter Specialization:
27
ENG 3500
Introductory Linguistics 3

ENG 4555 Modern Grammars (prerequisite ENG 3500)
program.
UPPER DIVISION PROGRAM:
Semester Hours
Subject Matter Speciatization:
I. History 3001 Introduction to History 3
2. U.S. History at 3000,4000 or 50006
3. History other than U.S. 12
4. U.S. Government (POS 3044) 3

Professional Education:
EDF 3827 Schooling in America 3
EDG 3321 General Teaching
EDG $3322 \quad$ Laboratory 1 Laboratory 11

| LAE 4464 Adolescent Literature | 3 |  |
| :--- | :--- | :--- |
| Literary Criticism | 3 |  |
| Shakespeare | 3 |  |
| Communications electives | 6 |  |
| Literature electives | 6 |  |
| Professional Education: <br> EDF 3827 Schooling in America | 3 |  |
| EDG 3321 | General Teaching |  |
|  | Laboratory I |  |
| EDG 3322 | General Teaching | 3 |
|  | Laboratory 11 | 3 |

Reading Requirement:
RED 4325 Special Teaching
Laboratory: Reading 3
A student must complete six (6) semester 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 semesters.
LAE $4335 \quad \begin{aligned} & \text { Special Teaching } \\ & \text { Laboratory: }\end{aligned}$
English (minimum prerequisite or corequisite of 20 hours required in subject matter specialization)

LAE 4942 Student Teaching 9
Advisor Approved Electives:
Sufficient number of hours to accrue to a total of 60 semester hours at Florida International University.

60

## History Education: Grades 7-12 <br> DEGREE: Bachelor of Science <br> LOWER DIVISION PREPARATION: <br>  <br> 

Required Courses: 1) Two courses in history. 2) One course in the social sciences beyond freshman social science core (select from anthropology, economics, geography, political science or sociology). 3) Foundations of Education ( 6 semester hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 60 semester hours required in the student's upper division
Shakespeare
essional Education
EDF 3827 Schooling in America












## Subject Specializations

## Reading Requirement:

## RED 4325 Special Teaching

 Laboratory: ReadingSpecial Methods and Student Teaching:
A student must complete 6 semester 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 semesters.

| SSE 4384C | Special Teaching <br> Laboratory: Social |  |
| :--- | :--- | :--- |
|  | Studies |  |
| SSE 4942 | Student Teaching | 9 |

Advisor Approved Electives:
Sufficient number of hours to accrue to a total of 60 semester hours at Florida International University.

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

DEGREE: Bachetor of Science LOWER DIVISION PREPARATION:
Required Courses: Trigonometry. Analytic geometry. Calculus. Foundations of Education ( 6 semester hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 60 semester hours required in the student's upper divison program.

## UPPER DIVISION PROGRAM:

Semester Hours
Subject Matter Specialization:
27 semester hours beyond calculus, includ-
ing at least 6 semester hours in probability and statistics, and 3 semester hours in computer science and geometry.
Professional Education:

| EDF 3827 | Schooling in America <br> Eeneral Teaching | 3 |
| :--- | :--- | :--- |
| EDG 332I | Laboratory J <br> EDG 3322 | General Teaching <br> Laboratory JI |
|  | 3 |  |

## Reading Requirement:

RED 4325 Special Teaching
Laboratory: Reading
Special Methods and Student Teaching: A student must complete six (6) semester hours of foundations courses and all core courses before enrolling in 4000 level special methods before enrolling in 4000 level special methods courses. A student must
enroll for MAE 4333C and MAE 4942 in consecutive semesters.

$$
\begin{array}{ll}
\text { MAE 4333C } & \begin{array}{l}
\text { Special Teaching } \\
\text { Laboratory: }
\end{array}
\end{array}
$$

Mathematics (minimum prerequisite or corequisite of 20 hours required in subject matter specialization)
MAE 4942 Student Teaching 9
Advisor Approved Electives:
Sufficient number of hours to accrue to a total of 60 semester hours at Florida International University.

## Modern Language Education: Grades 7-12

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 ( 6 semester hours). If foundations, requirements are not met at the lower division, they must be taken in addition to the 60 semester hours required in the student's upper division program. UPPER DIVISION PROGRAM:

> Semester Hours

Subject Matter Specialization: 27
Phonetics or Contrastive Phonology 3
Intro. Linguistics or Linguistics in Target
Language
Civilization
Syntax/Composition

EDG 332 I General Teaching Laboratory I
EDG 3322 General Teaching Laboratory II

## Reading Requirement:

RED 4325 Special Teaching Laboratory: Reading3

Special Methods and Student Teaching: A student must complete the 6 semester hours of foundations courses and all core courses before enrolling in 4000 level special methods courses. A student must enroll for FLE 4375 and FLE 4942 in consecutive semesters.
FLE 4375 Special Teaching
Laboratory: Modern Languages
(minimum prerequisite or corequisite of 20 hours required in subject matter specialization).

FLE 4942 Student Teaching

Sufficient number of hours to accrue to a total of 60 semester hours at Florida International University.

## Physical Education: Grades 1-12

DEGREE: Bachelor of Science LOWER DIVISION PREPARATION:
Required Courses: Foundations of education; first aid or personal health or health education; physical education major courses in dance, acquatics, gymnastics, plus a minimum of two individual sports and two team sports. If the foundations requirements are not met at the lower division, they must be taken in addition to the requirements of the upper division program. All required courses must be completed with a grade of "C" or better.
Remarks: All physical education majors are expected to be proficient in the following activities: Football, soccer, volleyball, basketball, folk, social and square dance, track and field, tennis, goll, badminton, and/or archery, acquatics, and gymnastics. At the lower division, students should enroll in those courses in which they are least proficient. Students who have not completed the required courses may apply for admission if the deficiency is not greater than twelve (12) semester hours. However, all program prerequisites must be completed prior to entry into the senior year.
UPPER DIVISION PROGRAM:
Semester Hours
Subject Matter Specialization 18
PET 3310 Kinesiology 3
PET 3360 Exercise Physiology 3
*PET 346IC Physical Education in the Elementary School 3
PET 3640C Adapted Physical
PCB 3701 Foundations of Human Physiology 3
PET 4230C Motor Learning 3
The student has the option of selecting 9 semester hours of electives from the courses listed below.
Elementary \& Secondary Emphasis.
Electives: Elementary Physical
Education Emphasis
*PET 4430C Physical Education for Primary Grades
PET 4433 Physical Education for Intermediate Grades 3
Electives: Secondary Physical
Education Emphasis
PEO 4014C Coaching Sports
PET 4622C Athletic Injuries 3

## Subject Specializations

Professional Education:

EDF 3827
Schooling in America 3
EDG 3321 General Teaching Lab 13
EDG 3322 General Teaching Lab [I 3
RED 4335 Special Teaching Lab: Reading 3
PET 4450 Special Teaching Lab: Physical Education 3 PET 4945L Student Teaching

Advisor Approved Courses:
*Subject to number change.

## Physics Education: Grades 7-12

## DEGREE: Bachelor of Science

## LOWER DIVISION PREPARATION:

Required Courses: 8 semester hours of general physics; 8 semester hours of general chemistry; mathematics through Calculus II; and Foundations of Education ( 6 semester hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 60 semester 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:

| Semester Hours |  |  |
| :---: | :---: | :---: |
| Subject Matter Specialization: 26 |  |  |
| Physics 3040 | 3041, 3042 | 10 |
| Junior Physics Laboratory |  |  |
| 3040L-30 |  | 4 |
| Modern Phy |  | 6 |
| Electives in | hysics | 3 |
| Multivariat | Calculus | 3 |
| Professional Education: |  | 24 |
| EDF 3827 | Schooling in America | 3 |
| EDG 3321 | General Teaching |  |
|  | Laboratory I | 3 |
| EDG 3322 | General Teaching |  |
|  | Laboratory II | 3 |

Reading Requirement:
RED 4325 Special Teaching Laboratory: Reading3

Special Methods and Student Teaching: A student must complete six (6) semester 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 4944 in consecutive semesters.

SCE 4330
Special Teaching Laboratory: Science
(minimum prerequisite or corequisite of 20 hours required in subject matter specialization)

SCE 4944 Student Teaching 9

Sufficient number of hours to accrue to a total of 60 semester hours at Florida International University.

## Social Studies Education: Grades 7-12 <br> 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 ( 6 semester hours). If foundations requirements are not met at the lower division, they must be taken in addition to the 60 semester hours required in the student's upper division program.
UPPER DIVISION PROGRAM:

| Semester Hours |  |
| :--- | :---: |
| Subject Matter Specialization: | 21 |
| History | 9 |
| Political Science (POS 3044) | 3 |
| Geography (GEA 3000) | 3 |
| Economics | 3 |
| Anthropology or Sociology | 3 |
| Professional Education: | 24 |21

Political Science (POS 3044) 3
(GEA 3000) -
Anthropology or Sociology
Professional Education:
EDF 3827 Schooling in America
EDG 3321 General Teaching Laboratory]3

EDG 3322 General Teaching Laboratory II 3

Reading Requirement:
RED 4325 Special Teaching Laboratory: Reading
Special Methods and Student Teaching: A student must complete six (6) semester 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 semesters.
SSE 4384C Special Teaching Laboratory: Social Studies
SSE 4942 Student Teaching 9
Advisor Approved Electives:
*A minimum of 40 semester hours at the lower and upper divisions combined must be completed in the social studies subject matter specialization for certification. Electives must include sufficient semester hours in United States history (6), history other than United States (10), political science (6), geography (6), economics (6), anthropology (3) and sociology (3) to meet social studies certification requirements. It is recommended that the student consider a double major which combines a major in social studies with a major in history, history education,
international relations, political science, economics, anthropology or sociology. The student must consult with the social studies advisor about these requirements.

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## Graduate Programs

LOCATION: Tamiami Campus Only
Master's programs are offered by the Division in the following specialized area:
Art Education Music Education
English Education
Mathematics
Education
Modern Language
Education
Physical Education
Science Education
Social Studies
Education
TESOL (Teaching English to
Speakers of Other Languages)
A student must file a program of study with the 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 the program, the student is awarded the Master of Science degree.

Requirements for admission to all of these programs except TESOL are: (1) possession of a certificate or equivalent in the area selected, (2) satisfactory scholastic aptitude as determined by the Graduate Admission standards, (3) evidence of satisfactory record in the teaching field.
Requirements for admission to the TESOL master's program are: (1) satisfactory scholastic aptitude as determined by the Graduate Admissions standards and (2) evidence of a satisfactory record in a teaching or professional field.

A typical program of study consists of 30 semester hours of course work. Generally, 6 semester 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 6337 (See page EDU 2).

## Art Education

DEGREE: Master of Science

| Education, including Art Education: Hours |  |  |
| :---: | :--- | :---: |
| EDF 5481 | Analysis and Application <br> of Educational Research |  |
| ARE 6140 | Curriculum and <br> Instruction in Art | 3 |

## Subject Specializations



## Subject Specializations

the teaching of one of the modern languages. The field experience may be arranged according to one of the following options:
(a) Dade County Public Schools;
(b) Private schools;
(c) adult or community college education;
(d) adjunct teaching at Florida International University
All arrangements for field experience must be approved by the advisor.

## Physical Education

DEGREE: Master of Science
Semester Hours
Professional Education 6
EDF 5481 Analysis and Application of Educational Research 3
RED 6337 Reading in the Secondary School
Area of Specialization:
PET 5216 Sports Psychology
PET 5238C Perceptual Motor
Learning
3
PET 5256C Sociology of Sport 3
PET 5366C Sports Medicine 3
PET 5438 Physical Education Curriculum in Elementary School
PET 6535 Survey of Research in
PET 6932 Seminar in Physical Education

3
Electives:
PET 5426
Curriculum Development
in Physical Education 3
PET 5925 Workshop in Physical
Education 1-3
PET 6925-27 Workshop in Physical Education 1-3
*PET $4510 \quad$ Evaluation in Physical Education 3 Individual Study 1-3
PET 5906
Curriculum
Development 3
EDF 5216 Affective Learning in the Classroom 3 Instructional Media 3 Analysis of Teaching 3 30
or
An elective approved in advance by student's advisor.
*Required of all graduate students if they have not taken an undergraduate evaluation class.

## Teaching English to Speakers of Other Languages (TESOL)

DEGREE: Master of Science
Semester Hours
Professional Education:
12
EDF 5481 Analysis and Application of Educational Research 3
ESE 6215 Secondary School Curriculum
or
EDE 6205
Curriculum Design for Childhood Education 3
TSL 6371
Special Methods of TESOL
FLE 6938 Seminar in Second Language Education

3
Area of Specializalion:
Students in the M.S. in TESOL will choose, in consultation with the advisor, a total of 15 hours from among the following courses in the Departments of English, Modern Languages, and Psychology:

| ENG 4555 | Modern English |
| :---: | :---: |
|  | Grammar (or graduate equivalent) |
| LIN 4400 | Applied Linguistics (or graduate equivalent) |
| ENG 5907 | Independent Study |
| LIN 3400 | Applied Linguistics (or graduate equivalent) |
| LIN 4226 | Contrastive Phonology (or graduate equivalent) |
| LIN 4333 | Contrastive Morphology (or graduate equivalent) |
| LIN 4418 | Problems in Language Learning (or graduate equivalent) |
| LIN 5625 | Studies in Bilingualism |
| LIN 5934 | Special Topics in Linguistics |
| LIN 5701 | Psychology of Language (or graduate equivalent) |
| LIN 4710 | Language Acquisition (or graduate equivalent) |

Field Componenl:
The remaining three (3) semester hours will consist of a supervised field experience in the teaching of English to speakers of other languages. The field experience may be arranged according to one of the following options:
(a) ESOL in Dade County Public Schools;
(b) ESOL in adult and/or community college education;
(c) ESOL in private enterprise;
(d) Intensive English at Florida

International University
All arrangements for field experience must be approved by the advisor

## Course Descriptions

Definition of Prefixes
ARE - Art Education; ESE - Education Secondary; FLE - Foreign Language Education; LAE - Language Arts \& English Education; MAE - Mathematics Education; MUE Music Education; SCE - Science Education; SSE - Social Studies Education; PET Physical Education.

## ART EDUCATION

ARE 4316 Special Teaching Laboratory: Art in Grades K-6
Development of instructional skills, techniques, and strategies for teaching art in the elementary school. Laboratory and field participation required. Prerequisites: EDF 3827, EDG 3321, EDG 3322. Minimum prerequisite or corequisite of 20 hours required in subject matter specialization.
ARE 4341 Special Teaching Laboratory:
Art in Grades 7-12
Development of instructional skills, techniques and strategies for teaching art in the junior and senior high school. Laboratory and field participation required. Prerequisites: EDF 3827, EDG 3321, EDG 3322; ARE 4316. Minimum prerequisite or corequisite of 20 hours required in subject matter specialization.

## ARE 4940 Student Teaching in Art

Supervised teaching in an elementary and secondary school. Prerequisites: EDG 3321, 3322; ARE 4316, 4341; RED 4325, and 18 semester hours of the course work required in art.
ARE 5251 Art for the Exceptional
Child
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 (1-3) Individual investigation and research in one or more areas of art education. Prerequisite: consent of professor.

ARE 6140 Curriculum and Instruction in Art
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. Prerequiste: EDF 5287.
ARE 6262 Organization and Coordination of School and Community Art
Procedures for the organization, coordination and evaluation of school, community, and inservice art programs, with particular attention to the urban multi-cultural setting.

# Subject Specializations 

## ARE 6706 Seminar in Art Education: Contemporary Issues and Research

Examination of current issues and review of research in art education literature. Delineation and application of an individual research problem. Prerequisite: EDF 5481.
ARE 6925-28 Workshop in Art Education (1-3) Production and application ot materials and techniques in art education, in a laboratory or field setting.

## MUSIC EDUCATION

## MUE 3332 Special Teaching

Laboratory I
Development of instructional skills, techniques, and strategies for school music performance organizations through laboratory and field experiences. Prerequisites: EDF 3827, EDG 3321, EDG 3322.
MUE 4341 Special Teaching Laboratory II
Field-based methods, materials and instructional skills course, which prepares students for internship in an elementary and secondary school setting. Prerequisites: EDF 3827, EDG 3321, EDG 3322, MUE 3332.

## MUE 4940 Student Teaching

Supervised teaching in an elementary school (5 weeks) and a secondary school ( 5 weeks). Prerequisites: EDF 3827, EDG 3321, EDG 3322; MUE 3332 , MUE 4341; RED 4325, and 20 semester hours of the coursework required in music.
MUE 5907 Directed Study in Music Education
(I-3)(ARR)
Individual investigation in one or more areas of music education.
MUE 5928 Workshop in Music
(1-3)(ARR)
Applications of materials and techniques in music in a laboratory or field setting.
MUE 6349 Methodology of Music Teaching
Analysis of methods, programs and materials for teaching music in the public schools, and development of music pedagogy skills.
MUE 6925-26 Workshop in Music Education
(I-3)(ARR)
Applications of materials and techniques in music education in a laboratory or field setting.
MUE 6938 Seminar in Music Education
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 (1-3)(ARR) The student plans and carries out an independent study project under direction. Prerequisites: Consent of instructor.

## ESE 6215 Secondary School

 CurriculumExamination of programs, trends, and developments in curriculum and instruction in the secondary school. Consideration and evaluation of innovations.

ESE 6425 Research in Secondary Education
(I-3)(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
(1-3)(ARR) Production and application of materials and techniques in a laboratory or field setting. Prerequisite: Consent of instructor.

## ESE 6935 Seminar in Secondary

Education
(1-3)ARR)
Analysis of selected problems in secondary education.

ESE 6947 Supervised Field Experience
(3-9)(ARR)
Field work in an educational institution or organization. Prerequisite: consent of Chairperson of the Division.

## FLE 4375 Special Teaching Laboratory: Modern Languages

Development of instructional skills, techniques, and strategies for teaching modern languages in the junior and senior high school. Prerequisites: EDF 3827, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 14 hours in subject matter specialization.

## FLE 4942 Student Teaching

Supervised teaching in a junior or senior high school. Prerequisites: EDF 3827, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

## FLE 5908 Individual Study <br> (I-3)(ARR)

The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.
FLE 6336 Secondary Second Language in the Secondary School
A modern study of language learning and teaching from the theoretical and practical points of view, including the evaluation and
development of techniques and materials for second language teaching. Prerequisites: LIN 3010 or ENG 3500 or equivalent.
TSL 637I Special Methods of TESOL
Investigation of modern techniques for the teaching of oral and written communication in English to non-native speakers of English, including the evaluation and development of materials for English to Speakers of Other Languages. Prerequisites: LIN 3010 or ENG 3500 or equivalent.
FLE 6925 Workshop in Second Language
Education
(1-3)(ARR)
Production and application of materials and techniques in second language education in a laboratory or field setting.
FLE 6938 Seminar in Second Language Education
Advanced study and research on current topics and issues in the field of second language education. Variety of topics to include language testing, language proficiency, language and society, bilingual/bicultural education, and error analysis and the language learner.
LAE 4335 Special Teaching Laboratory: English
(3)

Development of instructional skills, techniques, and strategies for teaching English in the junior and senior high school. Prerequisites: EDF 3827, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of $16-20$ hours in subject matter specialization.
LAE 4464 Experiencing Adolescent
Literature in the JuniorSenior High School
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 of students who differ in intellectual abilities and literary tastes.
LAE 4942 Student Teaching
(9)

Supervised teaching in a junior or senior high school. Prerequisites: EDF 3827, EDG 332I, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.
LAE 5908 Individual Study (1-3)(ARR)
The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.
LAE 6339 Teaching English in the Secondary School
Analysis of methods, programs, and materials for teaching English in the junior and senior high school, and development of teaching skills.

# Subject Specializations 

## LAE 6925-26 Workshop in English

Education (1-3)(ARR)
Production and application of materials and techniques in English education in a laboratory or field setting.
LAE 6935 Seminar in English Education (3) Deslgned for advanced students, the readings and discusslons 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
Development of instructional skills, techniques, and strategies for teaching mathematics in the junior and senior high school. Prerequisites: EDF 3827, EDG 3321,and EDG 3322. Field experlence required. Minimum prerequisite or corequisite of 16 hours in subject matter specialization.
MAE 4942 Student Teaching
(9)

Supervised teaching in a junior or senior high school. Prerequisites: EDF 3827, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.
MAE 5908 Individual Study
(1-3)(ARR) The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.
MAE 6336 Teaching Mathematics in the Secondary School
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
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.
MAE 6925-28 Workshop in Mathematics Education
(1-3)(ARR)
Production and application of materials and techniques in math education in a laboratory or field setting.

## RED 4325 Special Teaching Laboratory: Reading

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
Development of instructional skilis, techniques
and strategies for teaching biological and physical sciences in the junior and senior high schools. Prerequisites: EDF 3827, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 16-20 hours in subject matter specialization.

## SCE 4944 Student Teaching

Supervised teaching in a junior or senior high school. Prerequisites: EDF 3827, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

## SCE 5905 Individual Study

(1-3)(ARR)
The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.
SCE 6635 Teaching Science in the Secondary School
Analysis of methods, programs, and materials for teaching science in the junior and senior high school, and development of teaching skills.

SCE 6925-26 Workshop in Science Education (1-3)(ARR)
Production and application of materials and techniques in science education in a laboratory or field setting.
SCE 6933 Seminar in Science Education
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
Development of instructional skills, techniques, and strategies for teaching history and social science in the junior and senior high school. Prerequisites: EDF 3827, EDG 3321, and EDG 3322. Field experience required.

SSE 4942 Student Teaching
Supervised teaching in a junior or senior high school. Prerequisites: EDF 3827, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter speciatization.
SSE 5908 Individual Study
(1-3)(ARR)
The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.
SSE 6633 Teaching Social Studies in the Secondary School
Analysis of methods, programs, and materials for teaching social studies in the junior and senior high school, and development of teaching skills.

[^3]techniques in social studies education in a laboratory or field setting.
SSE 6939 Seminar in Social Studies Education
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.

## PHYSICAL EDUCATION

PET 3202 Physical Education in the Secondary School
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
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
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 3461C Physical Education in the Elementary School
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 (3)
Competencies to be achieved include both a physiological and psychological understanding of atypical children and the ability to apply this knowledge in practical situations. Field experiences required.
PET 4230 C Motor Learning
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
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 im-
(Continued)

## Vocational Education

plementation 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
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 4014C Coaching Sports
Students will examine the philosophy, organization, and skills necessary for coaching interscholastic sports in an educational environment.
PET 4510 Evaluation in Physical Education (3) Students will demonstrate competencies in motor skill testing, grading, and analysis of written test scores necessary for successful teaching in physical education.
PET 4622C Athletic Injuries
Students will demonstrate knowledge of the proper care and prevention of athletic injuries through the application of acceptable training techniques.
PET 4945L Student Teaching (9)(F,W,S) During the student's internship, the student will demonstrate those competencies which are characteristic of a competent physical education teacher.

## PET 5125 History of Physical Education

 and SportStudents will study the history of sport and will take part in writing their own review of sport from a chosen time in history.

PET 5216 Sports Psychology
Course will include an analysis of psychological variables which might influence physical performance. Topics to be discussed include personality development, motivation, anxiety, tension, stress, aggression, attribution theory, and social facilitation. The course is intended for prospective physical educators and others interested in motor performance. No prerequisites.

## PET 5238C Perceptual Motor Learning

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 5256C Sociology of Sport

Students will demonstrate a thorough understanding of the sociological bases of sport and wifl actively engage in a field study involving a particular phase of sport and society.

PET 5366C Sports Medicine
The class will focus on the application of medical knowledge to sport with the aim of preserving the health of an athlete, whife improving performance.

PET 5426 Curriculum Development in Physical Education
Students wilf 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 5438 Physical Education Curriculum

 in the Elementary SchoolExamination of objectives, content, methods of teaching, and evaluative techniques in elementary school physical education. Emphasis on curriculum development and refinement of teaching skills.

PET 5906 Individual Study
( $1-3$ )(ARR)
Students wiff work independentily on a topic concerning some phase of physicaf education or sport under the guidance of a faculty member. Registration is by permission of advisor.

PET 5925 Workshop in Physical Education
(1-3)
Production and/or application of materials and techniques for physical education in a classroom and/or field setting.
PET 6535 Survey of Research in Physical Education
Following a survey of research in physical education, students will demonstrate competencies in applying this knowledge to teaching situations in the public schools.
PET 6925-27 Workshop in Physical Education
Production and/or application of materials and techniques for physical education in a classroom and/or field setting.

PET 6932 Seminar in Physical Education
Students will participate in the exploration, examination, and discussion of problems, issues, and trends in physical education and sport.
PET 6944 Supervised Field Experience
(3-9)(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.

## International Institute for the Study of Sport (IISS)

Florida International University began to conduct significant research in national and international sports in September, 1980, in the newly established International Institute for the Study of Sport (fISS). The primary purpose of
the Institute is to examine sports as an object of liberal inquiry, investigating its biologicaf, psychological, and sociological dimensions. All students, both undergraduate and graduate, who are interested in participating in the institute should contact Dr. Jack H. Llewellyn, Director; Dr. Richard Lopez, Associate Director of Operations; or Dr. Donald Smith, Associate Director of Research.

## Division of Vocational Education

Rosemere Baum, Chairperson and Assistant Professor, Home Economics Education
Curtis Bradley, Professor, Program Leader Vocational Industrial Education
Myrna P. Crabtree, Professor, Program Leader Home Economics Education
A. Dean Hauenstein, Professor, Industrial Arts Education
Dominic A. Mohamed, Associate Professor, Vocationat Industrial Education
Robert O. Pryor, Assistant Professor, Vocational Industriat Education
Janice R. Sandiford, Assistant Professor, Program Leader Health Occupations Education
Dennis G. Tesolowski, Assistant Professor, Vocational Special Needs Education
George W. Vanover, Associate Professor, Program Leader Business Teacher Education
Robert Vos, Assistant Professor, Program Leader Technicat Education
The Division prepares and services professionaf personnel whose major functions are to teach, coordinate, supervise, and administer vocational education programs in schools and other pubfic 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 prepara tion leading to the degree of Bachelor of Science in Education with specialized majors in the following areas: Industrial Arts Education Technical Education, Vocational Busines: Teacher Education, Vocational Health Occupa tions Education, Vocational Home Economics

## Vocational Education

Education, Vocational fndustrial 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 degree or equivaient 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 In goals, each student in consultation with his or her advisor plans a program of study during the first semester of enrollment.

## Business Teacher Education

DEGREE: Bachelor of Science

## LOWER DIVISION PREPARATION:

Required Courses: Foundations of Education ( 6 semester hours).
Required Technical Preparation: Business Machines, advanced courses in typewriting and shorthand, office practice or secretarial procedures. Students should complete as much of the following as possible at the community college or its equivalent course work from another fouryear college or university with the remainder to be taken at FIU: Six semester hours in accounting, six semester hours in economics, two semester hours in business English, and two semester hours of business law.
UPPER DIVISION PROGRAM:
Semesler Hours
Professional Education
(36-45)
EDF 3827 Schooling in America 3
EDG 3321 General Teaching
EDG 3322 General Teaching Laboratory II
RED 4325
$\begin{array}{ll}\text { EVT } 3065 & \begin{array}{l}\text { Laboratory Reading } \\ \text { Foundations of }\end{array}\end{array}$
EVT 3065 Foundations of Vocational Education 3
*EVT $4949 \quad$ Supervised Occupational Experience
BTE 3068 Principles of Business Education
BTE 4360 Special Teaching Lab: Business Education Non-Skills
BTE 4364 Special Teaching Lab: Business Education Skills
BTE 4944 Special Teaching Lab: Business Education Practicum Business Education istration

Recommended Courses:
MAN 3010 Organization and Management
MAN 3023 Marketing Management 3 Advised Electives: Six semester hours in Business Administration selected in consuftation with program advisor
Electives: Electives are recommended either in the School of Education or School of Business Administration and Organizational Sciences, and in consultation with the program advisor. (6)
*To be a certified vocational business teacher one must have one year (or its equivalent) of office work experience. Supporting letters from former employers are required. EVT 4949 may be taken to meet the work experience requirement.

## Vocational Home Economics Education

DEGREE: Bachelor of Science LOWER DFVISION PREPARATION:
Required Courses: Foundations of Education ( 6 semester hours).
Recommended Courses: With reference to subject matter specialization, the student is required to have for certification 39 semester 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 DIVISFON PROGRAM:
Semesler Hours
Professional Education: 30
EDF 3827 Schooling in America 3
EDG 3321 General Teaching
EDG 3322 Generai Teaching
Laboratory If 3
HEE 3302 Home Economics Educational Planning3
$\begin{array}{ll}\text { RED } 4325 & \begin{array}{l}\text { Special Teaching Lab: } \\ \text { Reading }\end{array}\end{array}$
HEE 4104 Instruction in Vocational
HEE $4944 \quad$ Home Economics Laboratory: Home Economics Education
$\begin{array}{ll}\text { HEE } 4941 & \begin{array}{l}\text { Student Teaching: } \\ \\ \\ \\ \text { Home Economics } \\ \text { Education }\end{array}\end{array}$ 9
Technical Preparation: Totai of 39 semester hours needed from lower and upper division: (39)

Housing and Home Furnishing*
6
Management and Family Economics* 6
Famify and Child Development*

Food and Nutrition*
Textiles and Clothing* 9
*Courses offered in the School of Technology Advised Electives:
Sub-speciality area of concentration:
Competencies may be developed in one of the following 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.

## Health Occupations Education

DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required Courses: Foundations of Education ( 6 semester hours).
Required Technical Preparation: Occupational preparation in the student's intended area of teaching such as nursing, dental, medical technology, respiratory therapy, radiology technology and other allied health related occupations requiring training beyond the twelfth grade. Licensure in occupational area when applicable.
UPPER DIVISION PROGRAM:
Professional Education Requirements:
Semester Hours

| Professional Education | $24-30$ |
| :---: | ---: |
| EDF $3827 \quad$ Schooling in America |  |

EDF 3827 Schooling in America
3
EDG 3321 General Teaching Lab I
EDG 3322 General Teaching Lab II
RED 4325
Special Teaching LabReading
EVT 3065 Foundations of
Vocational Education
EVT 5078 Technical Education in American Saciety
EVT 3165C Course Planning in Voc. Educ.
EVT 3367 Tests and Measurements in Voc. Educ.
*EVT 4949 Supervised Occupational

3

3

## Vocational Education

*For the student who lacks acceptable occupational experience in the area to be taught. Not to be counted in the upper division 60 hours minimum required for graduation.
Specialization Area
Requirements

| EVT 4310 | Planning and Operating |  |
| :--- | :--- | :--- |
|  | HOE Programs | 3 |
| EVT 4311C | Special Teaching Lab | 3 |
| EVT 4312 | Instructional Strategies <br> and Evaluation in |  |
|  | HOE Programs | 3 |
| EVT 4941 | Student Teaching in <br>  <br>  <br> Health Occupations <br> Education Programs |  |

Suggested Electives:
Electives should be taken to equal a minimum of 60 semester hours.

## Industrial Arts Education

DEGREE: Bachelor of Science LOWER DIVISION PREPARATION:
Required Courses: Foundations of Education ( 6 semester 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:

|  | Semester Hours |  |
| :---: | :--- | ---: |
| Professional Education | 33 |  |
| EDF 3827 | Schooling in America | 3 |
| EDG 3321 | General Teaching Lab I | 3 |
| EDG 3322 | General Teaching Lab II | 3 |
| EVT 3165C | Course Planning <br> Vocational Education | 3 |
| RED 4325 | Special Teaching | 3 |
| EIA 4360 | Lab Reading <br> Instruction in | 3 |
| EIA 4941 | Industrial Arts <br> Student Teaching: <br> Industrial Arts | 3 |
|  | Education | 9 |

Advised Electives: The candidate will be encouraged to select 6 semester hours of professional electives on the basis of individual needs and career goals for a total of 33 semester hours of professional education.
Technical Preparation:
27
Required: A minimum of 27 semester hours are required for certification, with a minimum of 6 semester hours in each of the following areas:

## CONSTRUCTION

BCN 3702C $\begin{array}{ll}\text { Construction } \\ \text { Technology }\end{array}$
ETC 4252L Construction Processes
BCN 4251C Architectural Drafting

| MANUFACTURING |  | 3 |
| :---: | :---: | :---: |
| ETI 3417C | Manufacturing |  |
|  | Technology |  |
| ETI 4421C | Materials |  |
|  | Processing | 3 |
| $\begin{aligned} & \text { EDT } 4525 \mathrm{C} \\ & \text { or } \end{aligned}$ | Drafting I | 3 |
| ETD 4526C | Drafting 11 | 3 |
| ETM 4823C | Materials of Industry | 3 |
| BCN 4033 | Industrial Research and Development | 3 |
| GRAPHIC COMMUNICATIONS |  |  |
| ARV 3210 | Reprographics | 3 |
| ARV 4250 | Planographics | 3 |
| ARV 4150 | Photographics | 3 |
| POWER |  |  |
| ETM 4407 | Mechanical Power |  |
|  | Systems 1 | 3 |
| ETE 4562 | Electrical/ |  |
|  | Electronics Systems | 3 |
| ETE 3030 | Survey of |  |
|  | Electronics | 3 |
| ETM 4408 | Mechanical Power |  |
|  | Systems II | 3 |

Advised Electives: Enough electives should be taken to equal a minimum of 60 semester hours.

## Post-Secondary Technical Education

## DEGREE: Bachelor of Science

## LOWER DIVISION PREPARATION:

Required Courses: Foundations of Education ( 6 semester hours).
Required Technical Preparation: Technical preparation in the student's intended area of teaching such as electronics technology, architectural technology, 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 PREPARATION: Semester Hours
Professional Education
EDF 3827 Schooling in America 3
EVT 5078 Technical Education
3
EDG 3321 General Teaching
Laboratory 1
3
ADE 5385
Adult Teaching and Learning 3
EDG 3322
General Teaching Laboratory 11

3
EVT 31650

Course Planning in Vocational Education

| RED 4325 | Special Teaching |  |
| :--- | :--- | ---: |
| EVT 4949* | Laboratory-Reading | 3 |
|  | Supervised Occupational <br> Experience | $3-9$ |

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

| EVT 4990 | Credit by |  |
| :--- | :--- | ---: |
|  | Examination | $3-9$ |
| EVT 5460 | Educational Media | 3 |
| EVT 4940 | Special Teaching <br>  <br>  <br>  <br> Laboratory <br> Technical |  |
| EVT 4941 | Education <br> Student Teaching: <br> Technical | 3 |
|  | Education | 9 |

Advised Electives: Science, mathematics, technology, psychology or sociology. 6
Free Electives: Enough electives should be taken to equal a minimum of 60 semester hours.

## Vocational Industrial Education

## DEGREE: Bachelor of Science

 LOWER DIVISION PREPARATION:Required Courses: Foundations of Education ( 6 semester hours).
Occupational Experience: Evidence of appropriate occupational experience (as per Section 42, Florida State Teacher Certification Guide) must be presented prior to being admitted to the Vocational Industrial Education Bachelor of Science Degree Program.

## UPPER DIVISION PROGRAM:

Semester Hours
Professional Education: 45-51
EDF 3827 Schooling in America 3
EVT 3065 Foundations of
EDG $3321 \quad$ Gocational Educati Laboratory I
EDG 3322 General Teaching Laboratory Management and Safety

Laboratory II
RED 4325 Special Teaching Lab-Reading

3

EVT 3161 Instructional Materials in Vocational Industrial Education
EVT 3I65C Course Planning in Vocational Education Testing and Measurements in Vocational Education Subjects
EVT 3815C Vocational Education
EVT 3367原

[^4] $+$93

## Vocational Education

EVT 4949* | Supervised Occupational |
| :--- | :--- |
| Experience | $3-9$

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


| SOC 4265 | Man, Society and Technology |
| :---: | :---: |
| or |  |
| SOC 5261 | Industrial |
|  | Sociology |
| INP 3001 |  |
|  | Industrial |
|  | Psychology |
| $\begin{aligned} & \text { or } \\ & \text { EVT } 4562 \end{aligned}$ |  |
|  | Laboratory |
|  | Activities for |
|  | Teachers of the |
|  | Handicapped |
| EGC 5305 | Educational and |
|  | Vocational |
|  | Guidance |

Free Electives:
Enough electives should be taken to equal a minimum of 60 semester hours.

60

## Graduate Programs

The Division offers graduate course work leading to the degree of 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 certificate or equivalent and (1) have an upper division undergraduate grade point average of 3.0 ("B"), or (2) have a combined score of 1000 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. All applicants must submit a GRE score, or where appropriate a CLEP score, even though the GPA may be 3.0 or above.

Master of Science degrees in Business Teacher Education and Health Occupations Education are presently being planned. For specific information concerning these programs, contact the Division Chairperson.

Students are urged to contact the Admissions Office or the Division for further information.

Areas of emphasis available, along with typical programs of study, follow here.

Note: Students who have already met the reading requirements as an undergraduate or through in-service education may substitute an elective for RED 6335.

## Vocational Home Economics Education

$\begin{array}{lr}\text { DEGREE: Master of Science } & \\ & \text { Semester Hours } \\ \text { Required Core: } & 15-18\end{array}$
HEE 5335

## EVT 5168

Trends in Vocational
Home Economics
Education 3

|  |  |
| :--- | :--- |
|  | Development in <br> Vocational <br>  <br> Education |

HEE 6915 Research in Home Economics Education
HEE 6126 Teaching Home Economics in the Secondary School 3
HEE 6937 Seminar in Home
Economics Education 3

RED 6335
Reading in the Content Area

Area of Professional Emphasis: With program advisor's approval, a student may select courses in subject matter of Home Economics chosen from offerings outside of the School of Education, based on professional competencies needed.
Electives: The candidate will be encouraged to make selections on the basis of individual needs and career goals.

3-6

## Vocational Industrial Education

DEGREE: Masler of Science

| Required Core <br> EVT 5669 | Semesier Hours |  |
| :---: | :--- | ---: |
|  | Trends and Issues <br> in Vocational | $\mathbf{1 8 - 2 1}$ |
| EVT 5168 | Education <br> Curriculum | 3 |
|  | Development in <br> Vocational <br> Education | 3 |
| EVT 5695 | International <br> Comparative <br> Vocational Education | 3 |


| EVT 5766 | Evaluation in Vocational <br> and Technical |  |
| :--- | :--- | :--- |
| EVT 6760 | Education <br> Research in Vocational | 3 |
| EVT 6930 | Education <br> Seminar in Vocational <br> RED 6335 | 3 |
| Education <br> Reading in the Content <br> Area | 3 |  |
|  | Ara |  |

Area of Professional Emphasis: A student under the direction of an advisor, may develop professional competencies in an area of emphasis through school-based field experiences, seminars, methods courses, workships, or independent study.

3-9
Technical Electives: The candidate will be encouraged to select courses that will increase subject area technical competence. $\quad 3-6$

30

## Technical Education

DEGREE: Master of Science
Semester Hours
Required Core: 15-18
EVT 5669 Trends and Issues in
EVT 5168 Vocational Education 3
in Vocational Education
EVT 5766 Evaluation in Vocational and Technical Education
EVT 6760 Research in Vocational
EVT 6930 Seminar in Vocational
RED 6335 Reading in the Content Area3

Area of Professional Emphasis:
6
$\begin{array}{ll}\text { EVT } 5078 & \begin{array}{l}\text { Technical Education } \\ \text { in American Society }\end{array}\end{array}$
ADE 5385 Adult Teaching
and Learning
Technical Electives: 6-9
The candidate will be encouraged to select courses that will increase subject area technical competence.
Advised Electives for Non-education
Graduales:
EDF 5710 National Educational
Systems: A Comparative
Analysis
or
SOC 5284 and
EXP 5406
or
EDF 6215 Application of Learning
Theory to Instruction

## Vocational Education

## Industrial Arts Education

DEGREE: Master of Science

| Required Core: | Semester Hours |
| :---: | :--- | ---: |
| EVT 5669 |  | $\left.\begin{array}{llr}\text { Trends and Issues in }\end{array}\right)$

EIA 5811 Equipment and Facilities Planning
EIA 6931 Analysis of Industrial Arts Education3

The student, under the direction of his or her advisor, may develop professional competencies in an area of emphasis through seminars, methods courses, workshops, or independent study.
Technical Electives: The student is encouraged to select courses that will increase subject area technical competence.

3-6

## 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. Each graduate student, in consultation with the advisor, plans a program of study to include a core of professional competence, an area of emphasis, and electives. The programs require a minimum of 33 semester hours.
DEGREE: Master of Science
Semester Hours
Required Core:
27-30
EVT 5168
Curriculum Development in Vocational Education 3
EVT 5265
Supervision and
Coordination of Vocational Education Programs

3
EVT 5461 Community Relations and Resources for Vocational Education3333
EVT 6264
Administration of LocalVocational EducationPrograms
Seminar in VocationalEducation
EDA 6061
Operation of thePublic School System
EDA 6530
EDS 6050
EDG 6250
RED 6335
The Administration ofthe Secondary School
Area of Professional Emphasis:EV'T 6946 Supervised Field
Experience
Electives: The candidate may select a course (orcourses) that will increase administrative andsupervisory competencies.

## Professional Certificate Programs <br> Vocational Teacher Certification Education

33333The regular certificate (vocational), valid for five years, will be issued by the State Teacher Certification Office to an individual having: (a) appropriate occupational experience; (b) three years full-time teaching experience in a vocational industrial education subject; (c) 20 semester hours in professional education and vocational teacher education courses, and (d) successfully completed the Florida Teacher Certification Examination. 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 <br> VOCATIONAL TEACHER CERTIFICATION <br> Semester Hours

Required Courses:
Foundations of Education
Professional Vocational Education:
Certificate Area
EVT 3065
Foundations of Vocational Education A 3
EVT 3165C
Course Planning in Vocational Education (suggested second course in sequence) B3
EVT 3161 Instructional Materials in Vocational Industrial Education

## EVT 3815 Vocational Education Laboratory Management and Safety Elective 3 EVT 4363C Instructional Processes in Vocational and Technical Education (suggested first course in sequence) <br> C 3 <br> Advanced Vocational Teacher Certification

The State Teacher Certification Office will add the designation Advanced Vocational to the vocational teacher certificate of an individual who (a) has completed the requirements for Vocational Certification, and (b) has been employed as a vocational teacher in public or nonpublic schools in Florida for three years, and earned 36 semester hours of college credit in vocational teacher education and general education and/or general professional education in an approved plan of studies.

A proposed plan of study for Advanced Vocational Certification must be approved by the State Teacher Certification Office. This approval may only be obtained through a Division advisor. It is essential that a candidate for Advanced Vocational Certification meet with a Division advisor to develop a proposed plan ol study for approval by the State Teacher Certification Office prior to starting his or her program.

## Professional Graduate Certificate Program for Business Education

The professional Graduate Certificate Program for Business Education reguires a minimum of 18 semester hours of course work above the bachelor's degree. This program is designed for those who have already earned a bachelor's degree with a major in Business Education. Consequently, the student will have already met the State Department of Education certificate requirements.

A candidate is urged to consult the Business Education advisor to plan a program of study prior to starting a program.
Recommended Preparation
Semester Hours
RED 6335
EVT 5168 Curriculum Development in Vocational Education
EVT 5766
Evaluation in Vocational-Technical Education

## Vocational Education

| BTE 567t | Problems, lssues and <br> Trends in Business <br> Education |
| :---: | :--- |
| BTE 5371 | Teaching in Business <br> Education Occupational |
| or Programs |  |$\quad$ BTE 5774 $\quad$| Teaching Basic Business |
| :--- |
| and Consumer Education |

Advised Electives 3-6
*Students who have already met the reading requirements as an undergraduate or through in-service education will not be required to take this course.

## Health Occupations

Education Professional Certificate Programs

## General Information

The overall purpose of the professional certificate program in health occupations education is to enhance the development of basic teaching skills and/or instructional techniques of health occupations educators. The professional certificate program provides for the continuing education, upgrading or redirection needs of health occupations teachers through planned advisement and professional certificate recognition. The programs are for both undergraduate and graduate, degree or non-degree seeking students.

## Undergraduate Professional Certificate Program

This 18 semester-hour plan is designed to meet the needs of the individual who 1 ) is occupationally competent in the health field, 2) does not hold or intend to hold a bachelor's degree in Health Occupations Education, and 3) is currently teaching, or wishes to teach, a health occupations subject.
Prescribed Courses:
Semester Hours
EVT 3065 Foundations of
EVT 3165C Vocational Education

EVT 3367 Course Planning in Vocational Education

Testing \& Measurement in Voc. Education
EVT $4310 \quad$ Planning \& Operating a Health Occup. Program
EVT 4312 Instructional Strategies \& Evaluation in Health Occupations Programs
Advised Electives: A minimum of one course selected from courses in General Professional \& Adult Education, Vocational Education, Health Service Administration, or health speciality.

## Graduate Professional Certificate Program

This 24 semester hour plan is designed to meet the needs of the individual who 1 ) is occupationaly competent in a health field and currently teaching or desires to teach a health occupations subject, 2) holds a teaching certificate or equivalent and/or bachelor's degree (or both) including out of field and 3) does not wish to, or is unable to, meet the master's degree entrance requirements necessary to pursue the master's degree.
Prescribed Courses:

| EVT 5078 | Semester Hours |  |
| :---: | :---: | :---: |
|  | Technical Education in |  |
|  | American Society | 3 |
| or |  |  |
| EVT 5669 | Trends \& Issues in |  |
|  | Vocational Education | 3 |
| EVT 5168 | Curriculum Development in Voc. Educ. | 3 |
| EVT 5766 | Evaluation in Voc. \& |  |
|  | Tech. Education | 3 |
| EVT 5315 | Improvement of Teaching |  |
|  | Strategies in Health |  |
|  | Occupations \& |  |
|  | Nursing Education | 3 |
| EVT 5163 | Occupational Analysis in |  |
|  | Health Occupations and |  |
|  | Nursing Education | 3 |
| and/or <br> ADE 5383 |  |  |
|  | Adult Teaching |  |
|  | and Learning |  |

Advised Electives: A minimum of two courses selected from courses in General Professional and Adult Education, Vocational Education, Health Service Administration or Health Speciality

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## Vocational Education For The Handicapped

## Professional Certificate Program

Vocational Education for the Handicapped is a non-degree Professional Certificate Program offered through the School of Education. The project represents a unique cooperative effort between the Divisions of Vocational Education and Psycho-Educational Services. Instruction in the program focuses on training professionals in vocational skill areas to more appropriately serve the needs of handicapped adolescents and young adults.

Students who are pursuing, or have completed, either Florida Teacher Competency and Certification, or the bachelor's or master's degree in vocational education or special education are encouraged to enroll in this professional certificate program. Program competencies
were selected to enhance professionals' knowledge, skills, and attitudes in the following roles: instructional, diagnostic-prescriptive, behavior manager, advocacy, referral agent, and counselor. These professional roles are represented by 124 competencies which are packaged in 4 courses or 12 semester hours of instruction. The Office of Special Education-Division of Personnel Preparation in the U.S. Department of Education has financially supported this program with a Federal Grant for the past five years. Subsequently, it has been possible to provide financial assistance in the form of a Federal stipend to selected applicants. Students interested in applying for financial assistance should seek further information between January 15 and March 15 of any calendar year.

## The Specialist in Education and Doctor of Education Degrees

Preliminary feasibility studies and need assessments are being conducted for possible establishment of a Specialist in Education degree and a Doctor of Education degree in cooperation with other institutions in the areas of Vocational Education, Industrial Arts Education, Home Economics Education, and Business Teacher Education. For specific information concerning the status of each program, contact the Division Chairperson.

## Course Descriptions

## Definition of Prefixes

BTE - Business Teacher Education; EDG Education: General; EEX - Education: Exceptional Child, core competencies; EIA - Education: Industrial Arts; EV'T - Education: Vocational / Technical; HEE - Home Economics Education; HES - Health, Education, and Safety.

## VOCATIONAL EDUCATION

EVT 3065 Foundations of Vocational Education
Competency: A knowledge of the history of vocational education on the national, state, and local levels.
EVT 3161 Instructional Materials in Vocational Industrial Education
Competency: Technical knowledge and skill required to locate and evaluate existing instructional material and to plan, develop and validate existing instructional materials.
EVT 3165C Course Planning
Competency: Basic knowledge and skill in analyzing, planning, and organizing bodies of knowledge for instructional purposes.
(Continued)

## Vocational Education

EVT 3367 Testing and Measurements in
Vocational Education Subjects (3) Competency: Technical knowledge and skill in planning for and using tests and measurements as an integral part of the vocational-technical laboratory / shop teaching-learning process. Prerequisite: EVT 3165, Course Planning.

EVT 3815C Vocational Education Laboratory Management and Safety Competency: Knowledge and skill in analyzing, planning, organizing, and controlling laboratory environments and student's safe learning activities.

## EVT 4280 Occupational Safety \& Health (OSHA)

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.

EVT 4365C Instructional Strategies and Evaluation in Vocational and Technical Education
Competency: Knowledge and skill in analyzing, planning, developing, executing, and evaluating classroom and laboratory teaching and learning activities.

EVT 4668 Emerging Emphasis in Career Education
Competency: A knowledge of current trends and issues in reference to developing and integrating career education into current elementary and secondary educational programs.

EVT 4905 Individual Study (1-3)(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 Special Teaching Laboratory:
Vocational Industrial Education and Technical Education
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 4941 Student Teaching: Vocational Industrial Education and Technical Education
Competency: Utilization of instructional knowledges, attitudes, and skills in a variety of instructional situations in the vocational educational setting. Prerequisite: EVT 4940.

## EVT 4949 Supervised Occupational

## Experiences

(3-9)(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 (3-9)(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
(3)

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
Competency: Knowledge of the basic role and current status of technical education in an industrial democracy.
EVT 5168 Curriculum Development in Vocational Education*
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

Competency: Knowledge and skill in the supervision of personnel, and the coordination of work to achieve institutional goals.

## EVT 5389 Teaching Career Related Activities

Competency: Integration and articulation of career concepts and activities with regular curriculum.
EVT 5460 Educational Media
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 Competency: Knowledge and skill in developing and utilizing community resources and establishing public relations procedures and practices to implement vocational education programs.
**EVT 5562 Vocational Laboratory Activities for Teachers of the Handicapped
Competency: The use of projects, tools, materials and equipment to facilitate training the occupationally handicapped, physically handicapped and mentally retarded.
**EVT 5565 Introduction to Vocational Special Needs Education
Competency: Knowledge of historical developments, legislation, instructional strategies and program alternatives required to instruct special needs students in vocationally related environments.

## EVT 5669 Trends and Issues in Vocational Education*

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 5695 International Comparative Vocational Education
Competency: Skill and knowledge in comparison of vocational education in the United States in terms of purposes, systems, and problems with those of selected foreign countries.
EVT 5766 Evaluation in Vocational and Technical Education*
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
(1-3) KARR)
Competency: The ability to identify, research, and report on a special problem of interest to the student. Subject to approval of programs adviser.

## EVT 5925 Workshop in Vocational Education

(1-6)
Competency: Selected competencies related to instructional and technical areas.
EVT 6264 Administration of Vocational Education Programs
Competency: Knowledge of the principles, practices, functions, and roles of administration, in the oepration of vocational education programs.
EVT 6760 Research in Vocational Education*
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
Competency: Selected competencies related to professional and program areas.
EVT 6930 Seminar in Vocational Education* (3) Competency: The application of knowledge and skills to solve special instructional, curricular and/or administrative and supervisory problems and issues in vocational education.

## EVT 6946 Supervised Field

Experience
(3-6)(ARR)
Competency: Application and refinement of competencies in either classroom, laboratoyr, or administration, and supervision, via schoolbased field experiences. Placement is subject to approval of program advisor.
*Graduate Standing Required.

# Vocational Education 

## HEALTH OCCUPATIONS EDUCATION

EVT 4310 Planning and Operating HOE Programs
Competency: Identifying, designing, implementing and evaluating Health Occupations Education Program.
EVT 4311C Special Teaching Lab in HOE Programs
Competency: Knowledge of institutional structure, organization, policies, and roles of school personnel with actual teaching experience in area of specialization.

EVT 4312 Instructional Strategies and Evaluation in HOE Programs
Competency: Knowledge and skill in analzying, planning, developing, executing and evaluating classroom and laboratory teaching and learning activities in Health Occupations Education.
EVT 4941 Student Teaching in Health Occupations Ed. Programs
Competency: Utilization of instructional knowledges, attitudes and skills in a variety of health occupations instructional situations. Prerequisites: EVT 4310, 4311C, 4312.

EVT 5315 Improvement of Teaching Strategies in Health Occupations and Nursing Education
Competency: Knowledge and skills in methods of teaching, and clinical performance evaluation appropriate to the health field, and development of teaching materials. Prerequisites: Currently teaching, or permission of instructor.
EVT 5316 Occupational Analyses in Health Occupations and Nursing Education
Competency: Analysis of current trends in area of health specialty and their application to teaching learning situations in health occupations education. Prerequisites: Currently teaching, permission of instructor, professional liability insurance.

EVT 5927 Workshop in Health Occupations Education
(1-3)
Competency: Selected competencies related to Health Occupations Education.
EVT 6662 Issues in Health Occupation and Nursing Education.
Competency: Identification and examination of current issues in Health Occupation and Nursing Education. Prerequisites: Currently teaching, permission of instructor.

## BUSINESS TEACHER EDUCATION

BTE 3068 Principles of Business Education (3) Competency: A knowledge of basic philosophies, principles, practices, trends, and objectives in Business Education.

## BTE 4360 Special Teaching Lab: Business

 Education Non-SkillsCompetency: Knowledge and application of instructional principles, methods, techniques and practices to the teaching of accounting, bookkeeping, and basic business and economic education courses. Prerequisites: BTE 3068 and professional education core concurrent with BTE 4494.

## BTE 4364 Special Teaching Lab: Business

 Education SkillsCompetency: Knowledge and application of instructional principles, methods, techniques and practices to the teaching for office careers to include office simulation and cooperative business education. Prerequisites: BTE 3068 and professional education core concurrent with BTE 4494.

BTE 4944 Special Teaching Lab: Business Education Practicum Competency: Application of methods of teaching in business and office occupations in selected institutions and knowledge of educational institutions. Prerequisites: BTE 3068 and professional education core concurrent with BTE 4360 and BTE 4364.

BTE 4945 Student Teaching in Business Education
(9) Competency: Competencies developed in the utilization of instructional knowledges, attitudes, and skills in business education instructional situations. Prerequisites: BTE 3068, 4360, 4364 and 4994; professional education core.
BTE 5371 Teaching in Business Education Occupational Programs
Competency: Knowledge of current and evolving methods, techniques and practices to teach and evaluate office education programs to include office simulation and cooperative business education.
BTE 5671 Problems, Issues and Trends in Business Education
Competency: Historical information, issues, current trends, new dimensions and problems in business education. Prerequisite: Graduate standing.

BTE 5774 Teaching Basic Business \& Consumer Education
Competency: Knowledge of current and evolving methods, techniques and practices to teach and evaluate basic business and consumer education programs. Prerequisite: Graduate Standing.

## INDUSTRIAL ARTS EDUCATION

EIA 4042 The Role of Industrial Arts in the Schools Competency: Knowledge of the basic philosophy, goals, programs, principles, prac-
tices and learning environments in industrial arts, and the relationship of industrial arts to other school disciplines.
EIA 4360 Instruction in Industrial Arts
Competency: Application of education principles, practices, and techniques to the teaching of industrial arts. Prerequisite: EDG 332 I.
EIA 4941 Student Teaching in Industrial Arts (9) Competency: The utilization of instructional knowledge, attitudes, and skills in industrial arts education instructional situations. Prerequisites: EIA 4360, EVT 3165C.
ElA 5811 Equipment and Facilities Planning (3) Competency: Utilization of research, design, and engineering knowledge and skills to plan laboratory facilities and equipment.

## EIA 5905 Individual Study

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
(3)

Competency: Knowledge of industrial arts at the national, state, and local levels.

## VOCATIONAL HOME ECONOMICS EDUCATION

HEE 3302 Home Economics Educational Planning
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
Competency: Ability to apply educational principles, practices and techniques to teaching home economics in varied educational environments. Prerequisite: EDG 3321.

## HEE 4941 Student Teaching in Home

 Economics EducationCompetency: The utilization of instructional knowledges, attitudes, and skills in vocational home economics education instructional situations. Prerequisites: HEE 3301, HEE 4014. HEE 4944.
HEE 4944 Special Teaching Laboratory Home Economics
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.

## Faculty

## HEE 5335 Trends in Vocational Home

 Economics EducationCompetency: Knowledge of current social, economic and educational issues affecting the field of vocational home economics. Subject to approval of program adviser.
*HEE 5360 Teaching Child Development
*HEE 5361 Teaching Consumer Education and Family Economics
*HEE 5362 Teaching Clothing and Textiles (3)
*HEE 5363 Teaching Family Life Education (3)
*HEE 5364 Teaching Housing and Home Furnishings
*HEE 5365 Teaching Food and Nutrition
HEE 5905 Individual Study
Competency: The ability to identify, research, and report on a special problem in vocational home economics. Subject to approval of program adviser.
HEE 5927 Special Workshop - Home Economics
Competency: Skill in developing, organizing, teaching, evaluating, and administering programs related to specified aspects of the home economics education. Subject to approval of program adviser.
HEE 6126 Teaching Home Economics in the Secondary School
Competency: Knowledge of current and evolving methods, programs, and materials to teach and evaluate home economics. Prerequisite: EVT 5168 or permission of instructor.
HEE 6551 Supervision of Student Teachers in Home Economics
Competency: Skill in teaching, observing, and evaluating student teachers in vocational home economics.

HEE 6915 Research in Home Economics Education
Competency: The analysis and application of research pertaining to philosophy, curriculum, evaluation, and teacher education in home economics. Subject to approval of program advisor.
**HEE 6928 Special Workshop - Home Economics Education Competency: Skill in developing, organizing, teaching, evaluating and administering programs related to specific aspects of home economics education. Subject to approval of program advisor.
HEE 6937 Seminar in Home Economics Education
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.
*Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational methods.

## School of Education

Dean and Associate Vice President for Academic Development John A. Carpenter Associate Dean, Academic

Affairs
John J. Staczek Assistant Dean, Personnel and

Financial Affairs A. Dean Hauenstein Assistant Dean, Professional Studies
in Broward Counly Judith A. Blucker Assistant Dean, Human Resources

Development and
Community College Dominic Mohamed Assistant Dean,

Student Personnel Emma Rembert Assistant Dean,

Development and
Community
Studies
Luis A. Martinez-Perez
Director, Institute for
Technical Assistance Wendy Cheyney Co-Director, Institute for

Technical Assistance Robert F. Testa Director, Personnel, Communication
and Financial Support I. Toni Eisner
Chairpersons:
Childhood Education Richard Campbell Educational Leadership and Human Resources Development Stephen Fain Psycho-Educational Services
Subject Specializations
Vocational Education
Stephen Strichart Jan L. Tucker
Rosemere Baum

## Faculty

Alvarez, Carlos, M., Ph.D. (University of Florida), Associate Professor, PsychoEducational Services
Baum, Rosemere, Ph.D. (Pennsylvania State University), Assistant Professor, VocaIional Education, Home Economics Education
Bradley, Curtis H., Ed.D. (Temple University), Professor, Vocalional Industrial Education
Blucker, Judith A., Ph.D. (Florida State University), Associate Professor, Health and Physical Education
Brown, Lester B., Ph.D. (Ohio State University), Visiting Professor, Childhood Education
Campbell, Richard, Ed.D. (Indiana University), Chairperson and Professor, Childhood Education

Carpenter, John A., Ph.D. (University of Southern California), Dean, School of Education; Professor, Educational Leadership and Human Resources Development
Chadwick, Ida F., Ph.D. (Florida State University), Associate Professor, Health and Physical Education
Cheyney, Wendy, Ed.D. (University of Miami), Associale Professor, Psycho-Education Services
Crabtree, Myrna P., Ed.D. (Teachers College, Columbia University), Professor, Home Economics Education
Dempsey, Arthur, Ed.D. (Univeristy of Arizona), Associate Professor, Childhood Educalion
Divita, Charles, Jr., Ph.D. (Florida State University), Professor, Adult Education
Fain, Stephen M., Ed.D. (Teachers College, Columbia University), Chairperson Professor, Educational Leadership and Human Resources Development
Farrell, Robert V., Ph.D. (Teachers College, Columbia University), Associate Professor, Educational Leadership and Human Resources Development
Fisher, Allen, Ph.D. (University of Connecticut), Associate Professor, Educational Leadership and Human Resources Development
Friedenberg, Joan, Ph.D. (University of Illinois), Assistant Professor, Childhood Education
Gallagher, Paul D., Ph.D. (Florida State University), Associate Professor, Educalional Leadership and Human Resources Development
Gavilan, Marisal, Ed.D.(University of Tennessee), Associate Professor, PsychoEducational Services
Gay, Lorraine R., Ph.D. (Florida Slate University), Brofessor, Educational Leadership and Human Resources Development
Greenberg, Barry, Ph.D. (New York Universitul, Associate Professor, Educalional Leadership and Human Resources Development
Hauenstein, A. Dean, Ph.D. (Ohio State University), Professor, Vocational Education
Kaplan, Joseph E., Ph.D. (Florida State University), Assislanl Professor (Courtesy), Educational Leadership and Human Resources Development
Kennedy, Daniel A., Ed.D. (University of Oregon), Associate Professor, PsychoEducational Services (Bay Vista)
Kossack, Sharon W., Ph.D. (University of Georgia), Assistant Professor, Childhood Education (Bay Vista)
Lazarus, Philip, Ph.D. (University of Florida), Assistant Professor, Psycho-Educational Services

Llewellyn, Jack H., Ph.D. (Florida State University), Associate Professor, Health, Physical Education
Lopez, Richard, Ed.D.(Florida Atlantic Univeristy), Associate Professor, Health, Physical Education and Recreation
Lucky, Luretha, Ed.D. (Arizona State University), Assistant Professor, PsychoEducational Services
McClintock, C. Edwin, Ed.D. (University of Georgia), Associate Professor, Mathematics Education
Margolin, Edythe, Ed.D. (University of California), Professor, Childhood Education
Marshall, Nancy, Ph.D., (Cornell University), Assistant Professor, Childhood Education
Martinez-Pérez, Luis A., Ph.D. (Florida State University), Associate Professor, Science Education
Mathewson, Grover, Ph.D. (University of California at Berkeley), Associate Professor, Childhood Education
Mendoza, Alicia, Ed.D.(University of Miami), Assistant Professor, Childhood Education (Bay Vista)
Mohamed, Dominic A., Ph.D. (University of Minnesota), Associate Professor, Vocational Education
Morrison, George S., Ed.D. (University of Pittsburgh), Professor, Childhood Education
Nathanson, David E., Ph.D. (University of Minnesota), Professor, Psycho-Educational Services
Oliva, Peter F., Ed.D. (Teachers College, Columbia University), Professor, Educational Leadership and Human Resources Development (Bay Vista)

Pearson, George B., Ed.D. (University of Oregon), Professor, Health and Physical Education
Pell, Sarah W. J., Ed.D. (Duke University), Associate Professor, Educational Leadership and Human Resources Development (Bay Vista)
Pennington, Clement, Ed.D. (Pennsylvania State University). Associate Professor, Art Education
Perry, Ronald W., Ed.D. (Louisiana State University), Assistant Professor, Parks and Recreation Management
Pryor, Robert O., Ph.D.(Florida State University), Assistant Professor, Vocational Industrial Education
Reichbach, Edward M., Ed.D. (Wayne State University), Associate Professor, Childhood Education
Rembert, Emma W., Ed.D. (Syracuse University). Associate Professor, Childhood Education, Ass't Dean, Student Personnel
Rosenberg, Howard, Ed.D. (Teachers College, Columbia University), Associate Professor, Psycho-Educational Services
Ryan, Colleen A., Ph.D. Ohio State University), Associate Professor PsychoEducational Services (Bay Vista)
Sandiford, Janice R., Ph.D. (Ohio State University), Assistant Professor, Vocational Education, Health Occupational Education
Shostak, Robert, Ph.D.(University of Connecticut), Professor, Engtish Education
Smith, Donald C., Ph.D. (Syracuse University), Professor, Psycho-Educational Services
Sowards, G. Wesley, Ed.D. (Stanford University), Professor, Distinguished Professor of Education, Educational Leadership and Human Resources Development

Staczek, John J., Ph.D. /Georgetown University), Associate Professor, Modern Language Education/TESOL, Associate Dean for Academic Affairs and Management
Stinson, John J., Ph.D.(University of Connecticut), Assistant Professor, Childhood Education
Strichart, Stephen S., Ph.D. (Yeshiva University), Chairperson and Professor, PsychoEducational Services
Sullivan, Zola J., Ph.D.(University of Illinois), Associate Professor, Childhood Education
Tesolowski, Dennis G., Ed.D. Auburn University), Assistant Professor, Vocational Special Needs Education
Testa, Robert F., Ph.D. (University of Miami), Associate Professor, Co-Director, Institute for Technical Assistance
Toomer, Jethro, Ph.D. (Temple University), Professor, Psycho-Educationat Services
Tucker, Jan L., Ph.D. (Indiana University), Professor, Chairperson and Subject Specializations
Vanover, George W., Ed.D. (University of Tennessee), Associate Professor, Vocational Education, Business Education
Vigilante, Nicholas J., Ph.D. (Ohio State University), Professor, Childhood Education and Chairperson, Bay Vista
Vos, Robert. (Rutgers University), Assistant Professor, Technical Education
Wagner, Michael J., Ph.D. (Ftorida State University), Associate Professor, Music Education
Wells, James D., Ed.D.(University of Florida), Associate Professor, Educational Leadership and Human Resources Devetopment Woods, Sandra L., Ed.D.(Rutgers University), Assistant Professor, Psycho-Educational Services (Bay Vista)
School of Public Affairs and Services


# School of Public Affairs and Services 

The School of Public Affairs and Services offers programs of professional study which provide academic and applied courses for students interested in public and non-profit organizational needs, management and research. Emphasis is placed on achieving a comprehensive, developmental and community oriented understanding of problems, issues, alternatives and needs of an urban society faced with rapidly changing social, political, economic and cultural conditions.

The departments of the School of Public Affairs and Services are: Criminal Justice, Health Services Administration, Public Administration and Social Work. Each of these Departments offers the baccalaurate degree, and a masters degree is offered by the Departments of Criminal Justice, Public Administration and Health Services Administration. A Master of Social Work program will begin in the Fall Semester of 1981.

## 1. ADMISSION REQUIREMENTS

UNDERGRADUATE AND GRADUATE Policies on admissions and prerequisites for the graduate and undergraduate programs are described in the appropriate departmental sections of this catalog.
II. ADVISEMENT

Each 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. Students needing pre-advisement should contact the specific department.
III. CLINICAL AND FIELD EXPERIENCES As an integral part of the program curriculum, the student may be provided supervised learning experiences in community service agencies. The clinical and field work experience is one of orientation, observation and practice in the particular program specialty of Public Affairs and is structured concurrently with relevant classroom experiences. Numerous community organizations provide opportunities for student internships and field practices.
IV. EXTERNAL DEGREE PROGRAM

The External Degree program is a selfdirected, 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. Not all departments offer the external degree option and each should be contacted for further information.
V. CONTINUING EDUCATION AND SPECIAL PROGRAMS
The School of Public Affairs and Services, in cooperation with the Division of Continuing Education, offers many credit, non-credit and workshop courses in OffCampus locations in Dade, Broward and Monroe Counties. Courses and locations vary each semester and the departments should be contacted for specific offerings.
VI. GRADING SYSTEMS

Course work in the School of Public Affairs and Services is generally graded on the letter system: A, B, C, D or F. Certain clinical or field experience program courses award a grade of $P$ (Pass) or $F$ (Fail). A grade of IN (Incomplete) may be awarded at the discretion of the instructor with specific time limitation imposed on the completion of the required work. Individual programs may have specific requirements regarding grades earned in required program of study courses. Undergraduate students must achieve an overall grade point average of 2.0 in order to graduate. Graduate students must maintain a grade point average of 3.0 in order to graduate.

## Criminal Justice

Robert Snow, Associate Professor, Chairperson
Harcourt Clark, Assistant Professor
Robert Clark, Professor
Jose Marques, Associate Professor
Regina Shearn, Associate Professor
Luis Salas, Associate Professor
Ronald Schneider, Assistant Professor
Ray Surrette, Assistant Professor
Jack Tuckfield, Assistant Professor
William Wilbanks, Associate 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.


LOCATION: Bay Vista
Courses may be offered on the Tamiami Campus or other locations.
DEGREE: Bachelor of Science in Criminal Justice
LOWER DIVISION PREPARATION:

## Required Courses: None

Remarks: 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 60 semester 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.
The core courses are:

| CCJ 3020 | Overview of Criminal |
| :---: | :---: |
|  | Justice Systems |
| CCJ 3101 | Law Enforcement |
|  | Systems |
| CCJ 3290 | Judicial Policy Making |
| CCJ 3301 | Correctional |
|  | Philosophy |
| CCJ 3011 | Nature and Causes |
|  | of Crime |
| CCJ 3700 | Methods of Criminal |

Area of Interest: See explanation below ${ }^{1} 18$ Specific Electives: See explanation below ${ }^{2} 9$ General Electives: See explanation below ${ }^{3} 15$
${ }^{1}$ Area of interest: 18 semester hours at the 3000 level or above in criminal justice are required for criminal justice majors. Only 6 semester hours of CCJ 4940 will count toward this requirement.
${ }^{2}$ Specific electives: 9 semester hours at the 3000 level are required in sociologyanthropology, social work, psychology, political
(Continued)

# Criminal Justice 

science, computer science or statistics. Any combination of these courses is acceptable.
${ }^{3}$ General etectives: 15 semester hours are required. No more than 9 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.

## Remarks:

(1) Independent study and directed readings courses may not be taken outside of the Criminal Justice Department except with written permission of the Criminal Justice Chairperson.
(2) Course work from disciplines outside of Criminal Justice will not be accepted to fulfill requirements in the Criminal Justice area of interest category.
(3) Students are required to maintain a minimum G.P.A. of 2.0 in the CCJ Area of Interest and Core Courses.

## 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 semester in which graduation is expected. Candidates for high honors must complete an application by the end of the third week of the second semester before graduation.

The CCJ 4910 paper must be completed by the end of the semester prior to graduation. This means that CCJ 4910 cannot be taken the last semester 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 89 semester hours into the Criminal Justice Program; however, the student must still have at least 60 semester hours at the 3000 level or above. All work transferred to FIU is subject to review and approval by the Criminal Justice Chairperson. Criminal Justice courses completed with a grade of "D" will not be transferred.

## Double Majors and Degrees

Students must complete the core courses ( 18 hours) plus 18 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 30 appropriate semester hours beyond the requirements of one degree have been earned).

## PRE-LAW CONCENTRATION

Pre-law Concentration Core Requirements: Same as requirements for a bachelor's degree in Criminal Justice ( 18 semester hours).
Criminat Justice Etective: The student shall complete a minimum of 18 semester hours of the following selected Criminal Justice course work:

| CCJ 3270 | Semester Hours <br> Criminal Procedure |  |
| :--- | :--- | ---: |
| CCJ 3291 | Judicial Administration 3 <br> CCJ 3501 | Delinquency Prevention <br> and Control |
| CCJ 3934 | Contemporary Issues in |  |
| CCJ 4251 | Criminal Justice <br> Criminal Justice and | 3 |
| CCJ 4280 | the Constitution <br> Law and Criminal | 3 |
| CCJ 4282 | Justice <br> Legal Aspects of | 3 |
| CCJ 4940 | Corrections | Field Work and |
| CCJ 4910 | Special Projects <br> Independent Research <br> in Criminal Justice | 3 |

Specific Etectives: Same as requirements for a bachelor's degree in Criminal Justice $(9$ semester hours).
General Electives: Same as requirements for a bachelor's degree in Criminal Justice ( 15 semester hours).
*Upon Consultation with the Criminal Justice advisor, students may be granted the opportunity to formulate a more intensive Pre-law Program of Study.
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 3
CHM 4130, 4130L Modern

Analytical Chemistry 5
Internship: A 3-6 credit internship in the laboratory of a participating criminal justice agency.
Criminat Justice Coursework: The student should elect 9 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 60 semester hours.

## Course Descriptions

## Definition of Prefixes

CCJ - Criminology and Criminal Justice.

## CRIMINAL JUSTICE CORE COURSES

## CCJ 3020 An Overview of Criminal

 Justice SystemsA 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 3101 Law Enforcement Systems (3) A conceptual study of the American police system.
CCJ 3290 Judicial Policy Making
An analysis of judicial systems and their legal, social and political environments. Interrelationships between the prosecutorial and other criminal justice substructures will be examined.

## CCJ 3301 Correctional Philosophy, Theory

 and PracticeAppraisal of correctional methods, utilized in the United States and other countries. Prisons, probation, parole, work-release programs, halfway houses, community-based correction programs and other techniques are analyzed.
CCJ 3010 The Nature and Causes of Crime
Social cultural, behavioral, political and economic causitive factors in the development of crime. Psychological and sociological considerations involved in criminal behavior. The role of the legislature as policy maker in criminalizing conduct, and the limits of the criminal sanction.
CCJ 3700 Methods of Criminal Justice Research
Elements of scientific perspective, interaction of research theory and practice. Research design, data collection, analytic and statistical techniques, use of data processing resources, and preparation of research reports.

## Criminal Justice

## ELECTIVES

CCJ 3271 Criminal Procedure
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 (3) Study of the rules of criminal procedure and evidence affecting the responsibilities of court administrators. Administrative relationships of courts with agencies involved in the criminal justice system will be examined.
CCJ 3320 Community Based Treatment
An examination of the various pre-trial and post-trial community based treatment programs. A special emphasis will be placed on the impact these programs have upon the criminal justice system and the clients they serve.

CCJ 3342 Correctional Counseling
A course designed to explore the nature and function of counseling within the correctional setting.

CCJ 3302 Correctional Treatment
A concentrated study of the various institution-based treatment programs. Emphasis is on the impact and operational aspects of these programs.

## CCJ 3450 Institutional Organization and Administration

Analysis of internal organizational structure and executive roles and functions in criminal justice agencies. Examines administrative and managerial concepts underlying decision making, policy formulation, operational strategies, and coordination and control procedures. Cases and outside research reports are used for specific analysis.

CCJ 3460 Management of Human Resources (3) Analysis of criminal justice manpower input problems - recruitment, selection, placement, training, development and control at all levels. Emphasis is on policy issues, research findings, and advanced techniques.

## CCJ 3461 Developing Interpersonal Communication

The emphasis of this course is on the development of interpersonal communication practices that can be effectively utilized in a helping role and on the job, to improve interaction among employees and between the employees and the public.

## CCJ 3470 Criminal Justice Planning

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 applicatons studied.

## CCJ 3501 Delinquency Prevention and

 ControlSocial dimensions of juvenile delinquency, its nature, scope and distribution. Comparison and analysis of agencies of control and prevention.
CCJ 3934 Contemporary Issues in Criminal Justice
An extensive examination of selected contemporary issues in criminal justice. May be repeated.

## CCJ 3949 Cooperative Education in Criminal Justice

Supervised full time work semester 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: second semester academic standing.
CCJ 4131 Police-Community Relations
A study of the concept of policy-community relations, emphasizing the police role in community tension and conflict.

CCJ 4251 Criminal Justice and the Constitution
A study of constitutional issues as they relate to the administration of criminal justice.

CCJ 4280 Law and Criminal Justice
The resolution of criminal justice problems through the application of the law. The nature, sanctions, and limits of law. Categories of law and schools of jurisprudence.

CCJ 4282 Legal Aspects of Corrections
This course addresses the investigation of legal problems of prisoners, from conviction to release. Emphasis will be placed on the legal problems involved in presentence investigations, sentencing, probation, parole, incarceration, and loss and restoration of civil liberties.

## CCJ 4331 Probation and Parole

An examination of the treatment of convicted law violators by the correctional field services, before and after prison.
CCF 4452 Methods of Institutional Change (3) 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 4441 Administration of Correctional Institutions

Theories and techniques of administering correctional institutions, treatment, security, and custody. Social structure of the prison community and inmate social systems. Case studies.

CCJ 4462 Human Relations Training
(3)

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
(3)

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
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
(3)

A general survey of the institutions of justice in the United States, and their contacts with minority people. The focal 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
Women as deviants, criminals, victims and professionals in the criminal justice system.

CCJ 4900 Directed Readings in Criminal Justice
(1)

Extensive reading and analysis of selected literature under faculty supervision. Permission of instructor and Program Chairperson required. One credit per semester with a 3 credit maximum.

CCJ 4910 Independent Research
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. ( 6 credit maximum)
CCJ 4940 Field Work and Special Projects (1-9) A course designed to broaden the experiential base, application of theoretical content to criminal justice. Advisor's approval required. (Credit: No credit grading)

## CCJ 4949 Cooperative Education in Criminal Justice

Supervised full time work semester 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 <br> Graduate Program

The Master of Science degree program in Criminal Justice is a professional program de-

## Criminal Justice

signed 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 above for the last two years of undergraduate work, or a total score of 1000 on the Graduate Record Examination (verbal and quantitative) 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.

LOCATION: Tamiami and Bay Vista Campuses.
DEGREE: Master of Science in Criminal Justice.

## A. Degree Credit Requirements:

The Master's degree in Criminal Justice requires (36) semester hours of credit. A maximum of (6) semester 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 30 semester hours of course work and 6 semester hours of thesis. The non-thesis option consists of 36 semester hours of course work and comprehensive written and oral examinations. All candidates must take five core seminars.
B. Specific Program Requirements Are:

All course work taken in residence must be taken in the Criminal Justice Graduate Program, except that with the permission of the Graduate Admissions Committee, a total of not more than four (4) semester hours may be taken in any other relevant graduate program in this University.


Total 36

## 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 15 semester hours (including 2 of the 5 core courses). Admission to candidacy should be completed before the student enrolls for the last 12 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 elective, 3 general electives, and a written and oral comprehensive examination.

## Master of Science in <br> Criminal Justice

## Definition of Prefixes

CCJ - Criminology and Criminal Justice

## Core Courses

CCJ 6055 Seminar in the Criminal Justice Systems
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
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
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.
Statistical tools applicable to Criminal Justice research are examined. Emphasis is on developing an 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.

## Criminal Justice


#### Abstract

puterized statistical packages will be presented. Prerequisites: STA 3122 and STA 3123 or permission of Instructor.


CCJ 6709 Advanced Research Methods 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 Research
CCJ 6976 Masters Thesis

## ELECTIVES

CCJ 5056 History and Philosophy of
Criminal Justice
Criminal Justice

The historical and philosophical background of criminal justice is presented as a foundation for analysis and theory. The historical presence of peacekeeping and order-maintenance in all groups is researched. The nature and impact of philosophical comment on criminal justice is evaluated. No prerequisites.

## CCJ 5057 Ethics of Criminal Justice

An examination of the principles supporting various formal statements of appropriate standards of conduct for professionals in criminal justice. Each of the major subdivisions of criminal justice is examined as to ethical and moral judgments, past and present. Prerequisites: Admission to the Graduate Program of Criminal Justice or, for undergraduate students, permission of the instructor.
CCJ 6050 Seminar in Criminology
A critical study of selected theoretical and research issues related to the nature and causes of crime. Special topics are announced at the beginning of each semester. May be repeated.
CCJ 6105 Seminar in Law Enforcement
An analysis of current major hypotheses and problems in law enforcement. Special topics announced at the beginning of each semester. May be repeated.
CCJ 6285 The Concept of Justice
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
An analysis of current major hypothesis and problems in corrections. Special topics announced at the beginning of each semester. May be repeated.

CCJ 6456 Administration \& Management of Criminal Justice Agencies
An examination of the criminal justice system from the perspective of administrative and management problems. Emphasis is on the identifi-
cation 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
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

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

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 (3) An analysis of the various criminal justice subsystems as they interrelate with the political system, political feasibility, community control, and social and economic policy.

## CCJ 6486 Labor Relations in the Criminal Justice Sector

An examination of the area of collective bargaining for public employees. Special emphasis is placed on the current status of labor relations law and its impact on the criminal justice system.

## CCJ 6495 Seminar in Judicial Administration

An analysis of current major hypotheses and problems in judicial administration. Special topics announced at the beginning of each semester. May be repeated.

CCJ 6525 Seminar in Juvenile Justice
Philosophy and procedures of the juvenile courts. Discussion of dependency, delinquency, and family law. Evaluation of juvenile court practices.

## CCJ 6635 Seminar in Comparative Criminal Justice Systems

A comparative study of the various criminal justice systems in the United States with similar governmental and social systems in other countries.
CCJ 6665 Seminar in Victimology
An in-depth study of the criminal victim relationship.

CCJ 6716 Productivity and Program Evaluation
A systematic review of the problems involved in productivity, improvement in criminal justice agencies, and program evaluation.
CCJ 6717 Social Implications of Human Evaluation by Criminal Justice Agencies
An advanced study of the social implications of human evaluation by criminal justice. This study deals with the impact made on society by agency policies and procedures. There is a heavy research component in this course.
CCJ 6945 Field Experience in Crimina! Justice
(3)

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.

## CCJ 6971 Thesis Research

(3)

This course is devoted to the actual research labor required for a thesis in the Masters program.

CCJ 6976 Masters Thesis
This course is devoted to the effort required to prepare the thesis document.

## Health Services Administration

Vandon White, Professor and Acting Chairperson

Thomas M. Dunaye, Professor
Donald E. Davis, Associate Professor
Charles Frankenhoff, Associate Professor

## Masters and Bachelors Programs

The Department of Health Services Administration offers graduate and undergraduate studies leading to Bachelors and Masters degrees in Health Services Administration.

The baccalaureate program provides professional education which typifies the traditional preparation of mid-level administrators and department supervisors practicing various middle-management functions usually in community based health care settings.

The graduate program provides scholarly, scientific and professional education which is characteristic of traditional preparation for management executives practicing the administration of complex health care organizations in governmental and private settings geographically within communities, regional, state and national systems.

The modern management of health services occurs in an environment vexed with problems
(Continued)

## Health Services Administration

of organizational and technological change. Administrators charged with executive responsibilities must be grounded in a high degree of formal professional training followed by lifelong learning which fosters their continuous professional growth. With the delivery of health services becoming vastly more complex, general management competencies have emerged three and four levels below that of the chief executive officer in large health institutions. Many of the same skills needed for executive management are now also required to provide administrative leadership in staffing, directing, coordinating and controlling the operational resources of administrative and clinical units in such organizatons.

The Bachelors program is designed to qualify students for entry-level administrative positions with various health care organizations or may, depending upon a student's prior professional experience in this field, serve as the necessary ideal preparation for further graduate study in health care management such as the masters program offered by this Department. Both programs are structured systematically on the model of bachelors studies scholastically-linked directly to the masters studies in a logical sequence of "basic-to-advanced" education for this profession. Such opportunity for bi-level academic preparation in an integrated programmatic framework at the same university is an unusual innovation in academic settings at the present time in the United States.

The Masters program in health care management, by virtue of its academic and field experience requirements, is generally considered a professional degree program. Most graduates will seek immediate employment in a career application of these studies at the central or overall level of administration.

The Master's program is designed so that full-time students may complete all course work in three semesters. The same curriculum can be completed by part-time students within three years. Formal studies stress a basic foundation of professional knowledge, skills and competencies in management, planning, analytic and policy functions of health services. This focus is concerned with application both in the United States and the international setting.

Since these studies provide a professional emphasis, the Department utilizes a variety of local hospitals, Iongterm care facilities, prepayment plans, mental health programs, multi-institution corporations, emergency medical systems, health maintenance organizations, community health centers, and related public health and private agencies to give students supervised field experiences and a "practical laboratory" for operational research in health services administration.

The goal of both Masters and Bachelors programs is to create an academic center in which
the university can respond to the educational needs of the field of health services administration. The Department's mission, therefore, is dedicated to the following educational objectives:

1) To provide professional studies in the theories, methods and practices of health care management, planning, analysis, applied research and policy development in health services organizations.
2) To offer continuing education opportunities periodically for practicing administrators toward improving the effectiveness of their management performance.
3) To participate in interprofessional education experiences with faculty, students, and practitioners of the allied health sciences, public affairs and related human services professions interacting with the field of health care management.
4) To extend consultation and technical assistance to appropriate organizational settings and practitioners in health services and administrative practice.
5) To conduct scholarly and applied research on various management problems and issues of significance to improving the defivery of health services.
6) To review and revise program curricula and objectives from time to time in order to keep current with the changing educational and professional needs of the field.

## Bachelor of Health Services Administration

## Admissions Criteria

Students seeking admission into the bachelors program must meet the following minimum requirements:
A. An Associate of Arts degree, or its equivalent (e.g., Associate of Science, three year nursing diploma) in lower-division coursework ( 90 quarter hours or 60 semester hours) completed in the first two years of preparation at an accredited college or university, with a minimum 2.0 cumulative grade point average.
B. Non-traditional coursework is to be referred to the Department for evaluation.
C. The maximum of lower-division transfer credits is 60 semester hours ( 90 quarter hours). Upper division credit hours from another institution or department may be transferred up to a maximum of 30 semester hours ( 45 quarter hours) toward the fulfifiment of required or elective courses in the program.
D. Admitted applicants must meet all general educational requirements of Florida International University, or receive provisional admission. Students with 1 deficiency will be admitted and applicants with 2 or more de-

ficiencies wifl only be admitted with departmental approval.
E. Any other general admissions requirements of undergraduate programs at Florida International University as found in the catalog of the current academic year.

## Internship Requirement

Students electing an administrative internship generally begin their internship in the final semester. If this period of field placement is evaluated by the Department as successful, the student will graduate at the end of that semester provided that all other requirements have been met.

All students must achieve a GPA of 2.5 or better in all upper-division coursework before they are permitted to enroll in the Administrative Internship (HCA 4940).

The Department utilizes the administrative internship as a mechanism in lieu of special arrangements with the University's Office of Cooperative Education.

For further information regarding internship placements, reference should be made to the Department Policy and Procedures Statement on the Administrative Internship.
Program Requirements:
DEGREE: Bachelor of Health Services Administration

Program Total: Semester Hours

All Department students completing BHSA in Health Services Administration are also subject to undergraduate student regulations and degree requirements governed by the policies of the School of Public Affairs and Services, Florida International University and the State University System.
LOCATION: Undergraduate courses may be offered on both the Bay Vista and Tamiami campuses as well as appropriate off-campus locations.

Semester Hours

1. Core courses required of alt students: 27

HCA 3120* Health and Social Services Delivery System
HCA 3501* Management for Health Professions

## Health Services Administration



HCA 4123
HCA 4125
HCA 4905
HCA 4930
HCA 4940

Team Approach to Health Services Delivery 3 Issues and Trends in Health Care Delivery 3 Independent Study 3 Special Topics Seminar in Health Services Administrative Internship 6
**Elective courses may include upperdivision courses offered by any University department including departmental courses in an area of specialization not selected by the student.

## Bachelor of Health Services Administration

## Course Descriptions

## Definition of Prefixes:

HCA - Health Care Administration GEY - Gerontology

GEY 3002 Issues and Trends in Gerontology (3) This course introduces the students toa study of the aging phenomenon and societal attitudes toward the elderly. Reviewed are various program efforts being undertaken by public and private agencies to cope with the problems of the aged.

## HCA 3103 Mental Health and Mental Retardation

The student will examine the community mental health services and services for the mentally retarded from a historical, policy, legislative and systems perspective.

## HCA 3120 Health and Social Service Delivery Systems

In this course students examine the history and current functions of health and social service delivery systems in the United States. The focus is on the components of these human service systems, how they interact, and their internal and external controls. Since this is the basic foundation course in the bachelor's curriculum for health services administration, the content is largely didactic in presentation.

HCA 3501 Management for the Health
Professions

This course surveys the fundamental theories, principles, and concepts of management to prepare the student for a middle-management position in health care. A primary objective is to begin developing the ability to effectively solve problems utilizing management tools and techniques. Practical applications of management theory in health care organization are approached largely through the use of case studies.

HCA 4115 People, Power and Politics in Health Affairs
(3)

In this course a demographic analysis of the United States population is examined in terms of the health needs of various special groups. Community power structures are analyzed to determine how they function in policies and decisions that govern the distribution of goods and services in society. The make-up of the board of Health Planning Agencies is discussed in terms of the political implications involved. Values, morals and expectations of various cultural and political groups are analyzed in relation to their impact on health care delivery systems. The role of organized health professional is also studied to determine their influence in the political process of community control of health services. The course will also treat health policy development in other nations.

## HCA 4123 Team Approach to Health

 Service DeliveryThe purpose of this course is to identify factors involved in team formation, structure, composition, maturity, growth and process. The fundamental processes of role definition and negotiation, communication, conflict-resolution and decision-making, as they relate to team effectiveness, are presented to analyze team functioning. Factors such as individuality, personal values and leadership styles are discussed. The structure and operation of team management in health facilities are discussed. Organizational behavior of management teams is discussed. Much of the course is developed experimentally using role-play, simulation gaming and group projects as the predominant instructional approach.

## HCA 4125 Issues \& Trends in Health Care Delivery

(3) This course presents the students with various significant health care issues and their developing trends. To keep timely with changing events of varying importance, the course content may be somewhat different each time it is offered. Depending on the currentness and relevance of these developments, however, the basic focus will generally cover policy questions involving health care organization, financing, quality, controls, and delivery of services.
HCA 4127 Family Health Centers
(3)

This course presents an historical review of family health centers and considers the role of primary care as an expanding alternative in meeting community health needs.

## Health Services Administration

HCA 4203 Health Care Financial \& Accounting Management
This course is designed to help the future health service department-level administrators understand financial management as one of their primary responsibilities. Basic accounting information to make managerial decisions.

## HAC 4303 Health Care Organization

 \& AdministrationThis course examines health care organization in the U.S. from a systems viewpoint, with a focus on: 1) the extent to which the nation is presently developing a unified "macro" health care system; 2) a variety of "microsystem" settings; and 3) the growing phenomenon of corporate hospital management. The administrative implications of a systems approach are explored with opportunity for students to prepare schematic models of various sectors of the health care system with the objective of improving the existing patterns. Prerequisite: HCA 3120

## HCA 4313 Legal Aspects \& Legislation

 in Health CareThis course involves the study of the corporate structure and legal liabilities of different types of health care institutions. The responsibilities and duties of health professions and what action constitutes a breach of that duty, are presented. Intentional and unintentional tort law is examined, including the health professional's grounds for defense in malpractice suits. Federal, state and local statutes for the provision and regulation of health services and facilities form the legal framework for analysis.

## HCA 4430 Principles \& Programs in Public Health

This course presents analysis of public health programs and their planning, with an overview of the organization of public health practices at various levels. Public health history and philosophy form the background of discussion which focuses on broad environmental and epidemiological problems occuring in urban and rural communities throughout the United States. Prerequisites: HCA 3120,3501 or 4125.
HCA 4432 Principles of Applied Epidemiology
The student is introduced to a broad survey of the methods and techniques used by epidemiologists investigating the distribution and causes of infectious and non-infectious diseases. A holistic approach is taken to the application of epidemiology principles in disease surveillance and control at the community level through public health agencies. Prerequisites: HCA 4430 and 4711.
HCA 4506 Applied Management in Heatth Care Organization
In this course management theory and principles are examined in their application to the
administrative process linking executive level administration with management functions at the unit or department level in complex health care organizations. The student explores in depth how format structure, organizational policies, interprofessional practices, and program resources are combined in making and implementing departmental decisions which support the objectives of the organizational as a whole. Case studies are emphasized as a source of actual problems and situations illustrating operational conditions found in health care settings.
HCA 4511 Human Resources Management \& Supervision
The role of health personnel supervisors is examined in relation to directing the work responsibilities of health care employees. Interviewing, performance appraisal, disciplining, counseting, job orientation, in-service training, and other personnel functions are explored. The literature on employee motivation and productivity is reviewed with implications for improved management practices. Legislation affecting persomnel in hospitals and other health care organizations is reviewed for understanding the basic structure of labor relations developing in the health field.

## HCA 4520 Automated Management \& Information Systems

This course is concerned with the analysis, design, and installation of management information systems in health care organizations. Cost-benefit aspects of information, evaluation of computer systems, file design and data management, data capture, storage and retrieval, and various economic considerations in systems acquisition are among the topics addressed. Emphasis is placed on understanding the unique characteristics of management information techniques systematically applied in the health care industry.

## HCA 4521 Health Care Computer Applications

Students in this course experience the use of computer applications for administrative analysis of various patient care, financial and program data typically found in health care situations. The hospital organization is used as a framework for discussing the design, interface characteristics, and data structures which can be technologically facilitated through the use of appropriate computer services. Basic hardware and software requirements of high volume data processing situations are examined in hospital operations.

## HCA 4612 Program Planning and Evaluation

(3)

In this course students are introduced to basic concepts of planning and evaluation as the fundamental tools of program design and develop-
ment. Opportunities for both theoretical and practical applications in the use of basic techniques are developed through both classroom exercises and student projects.

## HCA 4710 Health Management Systems Engineering

This course provides administrative health personnel with an introduction to health systems analysis and applications of various industrial engineering methods and procedures. Work systems, job analysis, space utilization, inventory control, and traffic patterns are among the program engineering topics explored.
HCA 4711/STA 4161 Statistical Methods for Health Care
This course is designed to acquaint administrative health personnel with the fundamental techniques of quantitative analysis. The format and development of course content require a basic Ioundation in mathematical background in order to build further on the use and application of descriptive and inductive statistics as they contribute to managerial decision-making in health care settings.

## HCA 4714 Fundamentats of Health

## Research Methods

This is an introductory course in research methods as applied to the health care field. In addition to the study of research methods and tools, students complete exercises in literature search, research report analysis covering research design and data analysis and report writing.

## HCA 4905 Undergraduate Independent Study

This course is designed to allow students an opportunity for in depth research or an actionoriented project carried out under the supervision of their faculty advisor. As an elective, an independent study should only be taken after substantial course work has already been completed in the program curriculum. In all cases preparation and approval for this course should be arranged during the academic semester preceding the semester planned for the study to begin. Prerequisite: Permission of faculty advisor.
HCA 4930 Special Topics Seminar in
Health Services
Health Services

This course is arranged to allow students to investigate one or more special topics of interest in the health care field and will usually be taught by visiting faculty or a planned group of guest lecturers who are qualified to bring particular expertise and experience to the topic(s) selected. The objectives aim toward expanding student knowledge in specialized fields when particular circumstances can be arranged for the required faculty resources and sufficient course

## Health Services Administration

enrollment. In all cases preparation and approval for this course should be arranged during the academic semester preceding the semester planned for the study to begin. Prerequisite: Permission of faculty advisor.
HCA 4940 Administrative Internship
The student who has completed all required upper division course work is provided an opportunity to observe and engage in administrative practice in a health care setting in order to enhance all prerequisite classroom instruction in the program. Upon successful completion of this course the student will be able (among others) to: 1) recognize and identify the administrative methods used in the organizational placement setting, 2) perform selected administrative procedures, 3) identify administrative, governance, funding and service structures, and 4) relate academic management theory to the organization's actual functioning. The student's experience will be evaluated by Department faculty through a combination of institutional visits and conferences with the agency preceptor and the student, evaluation of a weekly log kept by the student, and evaluation of final reports submitted by both student and preceptor. Prerequisite: Completion of all curriculum required course work.

## Master of Health Services Administration

## Admission Criteria

Students seeking admission into the graduate program must meet the following minimum requirements:

A Bachelor's degree from a regionally accredited university or college. Prerequisites for admission to this program are upper-division coursework in basic accounting and statistics with grade equivalents of "C" or better. (HCA 4203 and HCA 4711 are examples of equivalent courses provided by the Department.)

A "B" or better average in all work attempted while registered as an upper-division student for a baccalaureate degree, or a total score (verbal and quantitative) of 1000 on the Graduate Record Examination (GRE), or 850 on the Graduate Management Admissions Test (GMAT). Preference will be given to those who meet both of these qualifications.

All graduate applicants to this program are required to take the GRE or equivalent test regardless of previous grade-point average. All applicants must achieve a minimum GRE score of 850 ( 425 or better on both verbal and quantitative sections), or a $B$ or better GPA in at least four departmental courses taken as a special student.

Meeting the minimum requirements does not guarantee admission to the program. Admission
will be based on additional factors such as space availability, relevant work experience, motivation, successful completion of work as a special student, and compatibility of applicant's career goals with the program's objectives. The department adheres to the University policy governing the $10 \%$ waiver on admissions.

## Admissions Procedures

A student planning to enroll in the graduate program in Health Services Administration must complete the following steps and meet the stipulated requirements:
A. Submit a graduate application for admission to the Admissions Office of Florida International University. These forms are available from the admissions office. Together with the application form, the candidate is requested to submit a written statement of his/her career goals in relation to the desire to seek higher education in the field of Health Services Administration. This information should not exceed 500 words in length.
B. Have all official transcripts of previouslyearned 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 acceptable for application purposes).
C. Submit his/her scores on the Graduate Record Examination (GRE) or Graduate Management Admissions Test administered nationally by the Educational Testing Service, Box 955 (GRE), Princeton, New Jersey 08540.

Foreign students must submit their scores on TOEFL or a comparable examination, and meet all University admissions standards and procedures for international student admissions (see the appropriate section of the University Catalog).

All admitted students, whether full or parttime may begin their program of study in any semester, and all applications for admissions should be received by the Department no later than two months preceding the semester in which the student wishes to commence the program. If the admissions process cannot be completed in this time frame, the applicant may register as a special student pending admission.

The Department Admissions Committee will review completed applications and candidates will be notified if they are selected for a personal interview, which will be arranged at the mutual convenience of applicants and University faculty or their designee.

## Degree Requirements

To be eligible for a Master's degree, a student must:

1) Satisfy all University requirements for the Master of Health Services Administration Program.
2) Complete a minimum of 45 semester hours of graduate-level coursework in the department approved program.
3) Earn a minimum GPA of 3.0 or equivalent in all work completed at FIU as a graduate student.
4) No courses in which a grade below "C" is earned may be counted toward the master's degree.
5) A maximum of 9 semester hour-credits of graduate coursework may be transferred from an accredited university by petition at the time of admission.

## Special Student Registration

Special students are those who wish to register for 5000 - and 6000 -level courses, but who have not been admitted to a degree program. Special students may register for 6000 level courses with permission of the instructor. University regulations pertaining to non-degree seeking status must be observed.

## Academic Probation and Dismissal

Probation: A student on academic warning whose grade point average (GPA) in any semester falls below a 3.0 will automatically be placed on probation, indicating serious academic difficulty. The Department, through University channels, will appropriately communicate the necessary conditions to be met for continuing to remain enrolled in the program.
Dismissal: A student on probation who fails to earn a 3.0 GPA during that semester will automatically be dismissed from further enrollment. A student who has been academically dismissed may apply for readmission no earlier than one year after the semester of dismissal.

## Administrative Residency

Candidates for the Master's degree who have not had appropriate administrative experience in a health care organization are encouraged to pursue an administrative residency as a supplement to the Master's program. The residency is required for persons selecting institutional management specialization.* The responsibility for locating and arranging an approved placement shall be made by the Field Placement Coordinator in conjunction with the student, the semester prior to student enrollment in the residency. The faculty will supervise the student during this period. During this period, the residency will also constitute full-time matriculation in the program and require payment of
*Unless waived.
(Continued)

## Health Services Administration

regular tuition fees for the field placement courses. For more information, reference should be made to the Department Policy and Procedure Statement on the Administrative Residency.

## Master's Research Project Requirement

The Master's Research Project, if taken as an elective, is normally initiated and completed during the second year. Three credits are awarded for this problem-solving analysis writen in standard essay form. For more iniormation, reference should be made to the Department Policy and Procedures Statement on the Master's Research Project.

## Program Requirements

DEGREE: Master of Health Services Administration

Program Total: Semester Hours 45
All Department students completing the master's program are also subject to graduate student regulations and degree requirements governed by the policies of the School of Public Affairs and Services and Florida International University.
LOCATION: Graduate courses may be offered on both the Bay Vista and Tamiami campuses as well as appropriate off-campus locations.

Semester Hours

1. Core Courses required of all students 21 HCA 5101*

Introduction to Health Services 3
HCA 5713 Statistical Methods for Health Services 3
HCA 6114 Health Politics, Policy and Regulation 3
HCA 6201 Financial Management of Health Systems 3
HCA 6431 Public Health and Environmental Management 3
HCA 6504 Health Care Management
HCA 6508 Organizational Behavior in Managing Health Institutions

3
*HCA 5101 is a prerequisite for all departmental graduate courses except for students who have completed the departments Bachelors program. For such students HCA 5101 is waived and an elective will be substituted in the Master's program.
11.A reas of Specialization (One Area required)

| Semester Hours |  |
| :---: | :---: |
| A. Institutiona HCA 6302 | Management 15 |
|  | Hospital and Health |
|  | Facilities 3 |
| HCA 6316 | Health Law and Legat |
|  | Aspects of Management 3 |
| HCA 6505 | Personnel Management |
|  | and Labor Relations 3 |
| HCA 6717 | Quantitative Managerial |
|  | Methods 3 |
| HCA 6719 | Advanced Health |
|  | Services Management |
|  | and Research Seminar 3 |
|  | Semester Hours |
| B. Health PlanHCA 6200 | ing 15 |
|  | Health Economics \& Insurance Principles 3 |
|  |  |
| HCA 6434 | Methods of |
|  | Epidemiology |
| HCA 6610 | Applied Program |
|  | Development and |
|  | Evaluation Methods |
|  | in Health Services 3 |
| HCA 6611 | Health Planning Methods |
|  | \& Techniques 3 |
| HCA 6691 | Health Services Planning |
|  | \& Development 3 |
| Semester Hours |  |
| C. CommunityHCA 5425 | Health Services 15 |
|  | Long Term Care |
|  | Administration 3 |
| HCA 6128 | HMO and Ambulatory |
|  | Care Administration 3 |
| HCA 6434 | Epidemiology |
|  |  |
| HCA 6610 | Applied Program |
|  | Development and |
|  | Evaluation Methods |
|  | in Health Services |
| HCA 6616 | Mental Heath |
|  |  |
|  | Planning |
|  | Semester Hours |
| III. Electives * HCA 5135 | 9 |
|  | Emergency Medical Care |
|  | Systems 3 |
| HCA 5318 | Legal Issues and Ethics in |
|  | Health Care Delivery |
|  | \& Management 3 |
| HCA 6105 | Behavioral Aspects of |
|  | Health \& lllness 3 |
| HCA 6117 | Policy Science \& Health |
|  | Policy Analysis 3 |
| HCA 6205 | Financial Reporting, |
|  | Review-Reimbursement |
|  | Systems in Health Care 3 |
| HCA 6206 | Methods of Financial |
|  | Analysis in Health |
|  | Care Institutions 3 |
| HCA 6509 | Advanced Health Care |
|  | Management Seminar 3 |


| HCA 6613 | Design \& Functional <br> Planning of Health <br> Facilities | 3 |
| :--- | :--- | ---: |
| HCA 6615 | Comparative Health <br> Systems \& International <br> Health Planning <br> Advanced Applications <br> of Operations Research 3 |  |
| HCA 6718 | Masters Research <br> HCA 6732 <br> Project <br> Administrative <br> Residency <br> Graduate | 3 |
| HCA 6811** | 6 |  |
| HCA 6905 | Independent Study | 3 |

*Etective courses may include graduate courses offered by any University department including departmental courses in an area of specialization not selected by the student.
**Required for students specializing in Institutional Management, unless waived.

## Course Descriptions

Definition of Prefixes:
HCA - Health Care Administration
HCA 5101 Introduction to Health Services (3) In this course the student is introduced to organized health services in terms of delivery, financing, resources and function in American society. A wide variety of health care settings, including inpatient-ambulatory, public-private, clinical-administrative, etc., are examined through weekly two-hour lectures by faculty with varied expertise, followed by weekly twohour seminars during which students will be encouraged to analyze and amplify the lecture material in small group discussions with faculty coordinators. This is a cornerstone course upon which the entire graduate curriculum is a greater degree in more specialized depth.
HCA 5135 Emergency Medical Care Systems (3) This course is designed to explore the development and implementation of emergency medical service systems. It covers history, tegislation, structure and planning of emergency medical services with the objective of preparing managers for ENS systems (such as emergency departments in hospitals, police-fire rescue squads and coast guards, etc.).
The second portion of the course will focus on the special skills required of EMS administrators and planners. The approach in this section will switch to a seminar format with variable topic selection depending upon current developments in the field.

## Health Services Administration

## HCA 5318 Legal Issues \& Ethics in Health Care Delivery \& Management

The legal basis of regulatory boards and agencies is scanned in this course, including the relationships which exist between professionalism, legality, consumerism and ethics in delivering health services in various settings (e.g., urban and suburban hospitals, health centers, nursing homes, home health agencies, etc.). The relationship between organizational and productive efficiency in patient care will be treated in terms of the ethical roles of both providers and consumers. Patients' rights and the role of the patient to make decisions concerning his care are explored. The issues of life and death decisions and the use and role of modern technology and bioengineering is examined.

HCA 5425 Long-Term Care Administration (3) This course is aimed at offering the student an overview of administration of long-term care health services for elderly (and others with chronic conditions), both at the institutional and community based levels. To give the students a working knowledge of the holistic approach to the care of elderly and long-term care individuals, and the need to coordinate the service modalities available for care, both at institutional and community levels. Also an overview of special needs and problems of individuals who need long-term care. It will include sociological, ethical, political and economic factors associated with long-term care conditions.

## HCA 5713 Statistical and Research Methods

 for Health ServicesThis course deals with concepts of descriptive, inferential and non-parametric statistics, introduction to matrix notation and matrix algebra. Students will use various basic computer packages for matrix manipululation and statistical computations. A separate laboratory for student problem solving and computer training is arranged as part of the studies.

The student is also introduced to the formal study of research design and methodology which applies statistical analysis to problems in health care settings. Surveys are the aspects of formulation of research problems, hypothesis generation and testing, sampling methods, research designs and data analysis. Prerequisite: HCA 4711 or equivalent requiring instructor's permission.

## HCA 6105 Behavioral Aspects of Health

 and IllnessThis course examines man's capacity to adapt to his social, economic, cultural and psychological environment and the degrees of health and illness which result. Differing definitions of health and illness impact significantly on health care delivery. Client population behaviors and beliefs can either impede or make effective health care management processes. Individual and profes-
sional ability to identify and manage stress is studied. The remedies of holistic health are evaluated.
HCA 6114 Health Politics, Policy and Regulations
This course examines the power structure of communities and who governs. It also examines the use of consumer rights and consumer participation in making health care decisions.

In this course the role of government and forces in the private sector are analyzed in determining national, state and local health policies for American society. Various political structures and interest groups that influence the design and implementation of health policy are studied to understand the nature of their involvement in this process. The increasing role of regulation and public control in the health care industry will be examined in terms of current direction and impact on the management and financing of health facilities and services.

HCA 6117 Policy Science and Health Policy Analysis
This course is an introduction to Health Policy as seen within the context of the evolution of Social Policy. Building on an analysis of the evolution of national social policy, the course will examine major health policy issues. Various theories of policy making are considered, as well as a study of the various interest groups and processes involved. The course will examine major current health policy issues and examine historical and current efforts to effect change.

## HCA 6128 HMO \& Ambulatory Care Administration

The course involves an overview of the man agement process employed in health maintenance organizations (HMOs) and other group medical practices operating under various financial arrangements, including pre-payment.

Topics include analysis of the organization, delivery and planning of ambulatory care in hospitals, and free-standing facilities with a focus on preventive care, cost containment, accessibility and availability of primary health services at the community level.

Case studies are used to review successes and failures in group practice organization with the objective of exploring ways to increase both its quality and cost-effectiveness. Prerequisites: HCA 5101, 6200 and 6302.

## HCA 6200 Health Economics and Insurance Principles

Economics tends to deal with health systems in a linear fashion, applying traditional microeconomic analysis. This course will apply such analysis to hospitals and medical practice with special attention to the unique health care market. A systems approach will also be employed including cost-benefit and planning, programming, budgeting methodologies. Analysis of the
health care production functions will be related issues of cost containment. General principles of health insurance are reviewed from the point of view of the impact of reimbursement incentives on health care and national health insurance.
HCA 6201 Financial Management of Health Systems
The thrust of this course is to prepare health care managers at the executive level to address major issues and questions involving financial planning and management in their organizations. The student will gain insight into current policies of financial control in becoming a responsible management decision-maker. Topics covered in the course include cost finding, working capital management, capital financing, accounts receivable management, investments, internal auditing and budgeting.

HCA 6205 Financial Reporting, Review \& Reimbursement Systems in Health Care
Financial reporting requirements of health care facilities and programs serve as the primary focus of this course. Cost reporting requirements of medicare, medicaid and private third party payers are analyzed. Requirements of the An nual Report of Hospitals and the Florida Hospital Cost Containment Commission are reviewed. Provisions of cost-based reimbursement and rate review systems are analyzed. Prerequisite: HCA 6201 or permission of instructor.
HCA 6206 Methods of Financial Analysis in Health Care Institutions
This course is designed for advanced students in health care management who have a need for command of methods and principles of financial and economic impact analysis as tools of managerial decision making. Course content emphasizes both the institutional and community level of decision requirements. Prerequisite: HCA 6201 or permission of instructor.
HCA 6302 Hospital and Health Facilities Organization
Administrative theory and management principles are examined in their application to the organizational analysis of hospitals and health care facilities. Students learn how formal structure, function, policies, inter-professional practices, community needs, and program resources are combined in delivering effective hospital and health services.
HCA 6316 Health Law \& Legal Aspects of Management
This course includes a survey of currently significant issues in law applicable to the delivery of health care. Included are such areas of concern as professional malpractice, research on human subjects, the rights of patients, hospitalization of the mentally disabled, community participa-

## Health Services Administration

tion in the health care system and collective bargaining with health care providers. Emphasis is placed on the relevance of practical problems faced in professional practice to the framework of law and public policy. Other topics include consent to medical and surgical procedures, medical-moral problems, concept of the corporation, principles of hospital liability, charitable immunity, medical records, contracts, taxation, regulatory authority, etc.

## HCA 6431 Public Health \& Environmental Management

This course examines the organization and functions of state and local health departments through the literature and specific case studies. A major health focus deals with environmental entities affecting health status and the programmatic measures and methods which are utilized to develop environmental control.

Students are given an administrative overview of the broad program concerns receiving the attention of public health and environmental management agencies and regulatory efforts to cope with these regional and community problems. Prerequisite(s): HCA 5101, 6316 or permission of instructor.

## HCA 6434 Methods of Epidemiology

The methods of epidemiology as applied by public health agencies are presented in historical and current perspective with disease and illness patterns of changing impact. How these techniques have transferred value to hospital, health agency and community environments is a concern of administrators who have high level responsibilities for managing the resources to improve health status. This course provides students with a foundation for applying useful quantitative tools in monitoring and evaluating levels of illness and disease conditions. Prerequisite(s): HCA 6431, 5713 or permission of instructor.

## HCA 6504 Health Care Management Theory and Practice

In this course the student is 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. The course attempts to facilitate an understanding of the managerial role in a complex, dynamic, and multidimensional environment. Prerequisite(s): HCA 3501 or equivalent with Instructor's permission unless admitted as MHSA program major.

## HCA 6505 Personnel Management \& Labor Relations

This course studies personnel structure, practices, and problems in health care organizations. Topics include salary and wage determinations, task analysis, employee recruitment, selection, testing methods, staffing requirements, and evaluation techniques through use of case studies. The course also reviews governmental
regulations and policies affecting the conduct of parties in bargaining relationships between labor and management in health care settings. Theory and principles of collective bargaining, negotiation strategies and tactics, methods of handling union grievances, understanding of agreement clauses, and benefit plans for health workers are additional topics considered.

## HCA 6509 Advanced Health Care Management

This is an advanced study of management aspects of changing technology, organizations, and systems in the health care industry. Students will actively assist in the seminar presentation of such topics as crisis, management, organization development, stress and time management of human factors, and advanced quantitative applications toward the control of complex systems management problems. Prerequisites: HCA 6504 or equivalent with instructor's permission.

## HCA 6508 Organizational Behavior in Managing Health Institutions

General theories of organizational behavior and executive functions are examined in their application to hospitals and other health agencies. The nature of administrative process, the role of individuals and groups, human relations, leadership and power, bureaucracy, authority, communications, goal and policy formulation, and functional strain, among other elements, are researched in the context of defining organizational effectiveness. Practical methods for organizational analysis are tested for utility. Prerequisite(s): HCA 6504 or equivalent with instructor's permission.

## HCA 6610 Applied Program Development and Evaluation Methods in

## Health Services

This course enters the process of designing grant applications and the study and application of program evaluation methods. Grant designs for governmental and nongovernmental sources of funds will be examined. Methods of program evaluation include Delbecq and Delphi, experimental and quasi-experimental designs, planning programming and budgeting (PPBS), and cost-effectiveness. Case studies will be used.

## HCA 6611 Health Planning Methods \& Techniques

This course focuses on methods which produce informed recommendations for health systems evaluation and change. These include needs assessment through nominal group process and Delphi; identification of health indicators; service location models, demand for forecasting, measurement of hospital performance; evaluation of linear regression, queueing analysis, and value analysis; cybernetic control systems; cost-benefit analysis; measurement of capital investment opportunities; and simulation modeling for cost containment strategies.

## HCA 6613 Design and Functional Planning

 of Health Facilities
## (3)

This course recognizes that the health facility administrator must manage institutional planning for new and/or expanded facilities. Course analysis include needs assessment, long range planning, and functional programming. Design includes short term planning and financial analysis. Execution includes phasing in of growth, regulations, and specific pitfalls. Cost containment strategies, including planning for multi-hospital systems are treated. Case studies and field visits are used as part of a laboratory process in which students plan and program specific facility development.
HCA 6615 Comparative Health Systems \& International Health Planning
This course prepares the student to appreciate the social, political, and cross-cultural aspects of international health care program planning and development found in selected countries of mixed economies (e.g., Latin America and the Circum-Caribbean). The problems and "pitfalls" imbedded in the planning process at national and regional levels in these countries are the focus of cooperative approaches explored.

## HCA 6616 Mental Health Administration

and Planning
Mental health planning and administration are essential for the development of community mental health services. This course will give primary attention to the development of a balanced network of community mental health services. Federal, state and local organizations will be identified and evaluated in their role in this enterprise. Population-based planning and categorical planning will be analyzed on a systems process basis including development, implementation, and evaluation. Third party reimbursement incentives will be considered.
HCA 6691 Health Systems Planning and Development
This course is an introduction to the formal organization and professional practice of health planning. Health care services are analyzed on a population basis rather than in terms of program categories. Community, regional and systems approaches to integrated planning are explored. Interventions in health systems at these levels are related to social, political and economic forces that interact dynamically.
HCA 6717 Quantitative Managerial and Applied Research Methods
This course begins with an overview of research methodology leading in the student's preparation of an outline for a research proposal during the initial period of topics covered. It then introduces the theoretical and practical aspects of operations research techniques, such as linear programming, computer simulation, and deci-

# Public Administration 

sion analysis. The primary objective here is to give students experience in formulating and solving typical management problems, and acquaint them with the advantages and limitations of research and quantitative techniques. The course will make use of case study material and actual operational data from health care institutions so that students may experience some direct skill applications of the methods and techniques. Prerequisites: HCA 5711 or equivalent with permission of instructor.
HCA 6718 Advanced Applications of Operations Research
This course teaches various advanced operations research and industrial engineering techniques for health care managers to apply in systems analysis and quantitative decisionmaking. Methods include game theory, graph and network analysis, critical path and PERT, queueing models, integer and non-linear programming techniques, and computer simulation. Optimization techniques and the use of the simplex algorithm in problem-solving are examined as they apply to improved administration functioning in health care settings. Prerequisites: HCA 5713 and 6717 or equivalent with instructor's permission.
HCA 6719 Advanced Health Services

> Management and Research Seminar
This is an integration capstone course designed for students in the final stage of their program as an opportunity to integrate the theoretical and practical knowledge acquired in other courses and activities of the curriculum. Selected case studies and relevant research drawn from the literature in health care management provide the substantive framework for seminar analysis of issues and policy questions which may invite attack for resolution through use of various managerial strategies and methods.
HCA 6732 Masters Research Project
In this course the student will be afforded the opportunity to conduct a research project on a specific health care management problem in a community or institutional setting. A formal proposal will be prepared first and, after faculty advisor approval, the project will be carried out to conclusion in a final professional report. Students will be expected to demonstrate during the course of this research project that they can implement theoretical knowledge and skills learned earlier in courses on research methods and design. Prerequisite: Permission of advisor.
HCA 6811 Administrative Residency
This course is designed to enhance and compliment the academic experience of students majoring in the graduate Health Services Administration program. This off-campus learning experience provides an opportunity to link the student's academic studies with actual practice in direct observation and supervised participa-
tion of the management processes in a selected health care organization. Students participating in this experience will carry out their assigned tasks under the guidance and direction of a field instructor/preceptor from the host agency, who may hold a voluntary adjunct faculty appointment in the Department of Health Services Administration and School of Public Affairs and Services.
HCA 6905 Graduate Independent Study
This course is designed to allow students an opportunity for in-depth research or an actionoriented project carried out under the supervision of their faculty advisor. As an elective, an independent study should only be taken after substantial course work has already been completed in the program curriculum. In all cases preparation and approval for this course should be arranged during the academic semester preceding the semester planned for the study to begin. Prerequisite: Permission of faculty advisor.

## Public Administration

Myung S. Park, Associate Professor and Chairperson<br>John G. Corbett, Assistant Professor<br>J. Arthur Heise, Associate Professor<br>Adam W. Herbert, Professor and Dean.<br>School of Public Affairs and Services<br>Donald Klingner, Visiting Associate Professor<br>K. William Leffland, Professor and Dean,<br>International Affairs Center<br>Ralph G. Lewis, Associate Professor<br>Ann-Marie Rizzo, Assistant Professor<br>Henry Thomas, Assistant Professor and Acting ITice-President for Student Affairs

LOCATION: Bay Vista Campus - courses may be offered on the Tamiami Campus or other locations.
DEGREE: Bachelor of Public Administration
The Bachelor of Public Administration degree within the School of Public Affairs and Services is offered mainly for students interested in beginning a public service careeer upon completion of their undergraduate work but also for those who wish to continue in public administration on the graduate level.
Admission Requirements: 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.
LOWER DIVISION PREPARATION:
Included in the applicant's Associate of Arts degree or equivalent must be one year of English composition, American history, introductory algebra, and economics; and one course in American government, sociology and psychology. The entering student who has not taken

these courses must enroll in appropriate courses at FIU. These courses must be taken in addition to the 60 semester hours required for the B.P.A. degree.
UPPER DIVISION PROGRAM:
Required Courses: Semester Hours
21
PAD 3034 Public Policy and its
PAD 3702 Quantitative Techniques for the Public Sector (prerequisites: STA 3122 or COP 3112 or equivalent)
PAD 4024 Concepts and Issues in Public Administration
PAD 4104 Organization and Administrative Theory
PAD 4223 Public Sector Budgeting
PAD 4414 Personnel Skills for Administrators
PAD 4804 Government and Administration of Metropolitan Areas
Note: Students must maintain a 3.0 average in the seven required courses to be awarded the B.P.A.

Semester Hours
Area of Concentration Courses: 12
Four courses are to be taken in a selected area of concentration relevant to public administration.

Option 1: The student can complete a recommended area of concentration integral to public administration in one of the following subfields:
(a) Administrative Theory and Behavior (Prerequisite: PAD 4104)
Two of the following:
PAD 4432 Administrative
Leadership and Behavior
PAD 4103 Politics of
Administrative
Organization
PAD 3430 Personal Growth and
Administrative
Development
Plus two of the following:
INP 3002 Introductory Industrial Organizational
Psychology

# Public Administration 

| SOC 5261 | Industrial Psychology <br> SIC 4406 <br> The Problems of <br> Bureaucracy in the <br> Modern World |
| :--- | :--- |
| (b) Public Personnel (Prerequisite: PAD 4414) |  |

## Four of the following:

PAD 3413 Organizational Group Processes
PAD 5427 Collective Bargaining in the Public Sector
MAN 4320 Personnel Recruitment and Selection
MAN 4330 Wage and Salary Administration
MAN 4322 Personnel Information Systems (Prerequisites: CIS 3000 and MAN 4301)
INP 4203 Personnel Psychology
INP 3002 Introductory Industrial/ Organizational Psychology
(c) Urban Policy and Administration (Prerequisite: PAD 4804)
Four of the following:
PAD 3033 Administrators and the Legislative Process
PAD 4103 Politics of Administrative Organizations
POS 3424 The Legislative Process
POS 3122 State Government
PUP 4314 American Ethnic Politics
POS 4463 Interest Group Politics
PUP 4203 Environmental Politics and Policy
POS 3153 Urban Politics
POS 4154 Topics in Urban Politics and Policy
(d) Intemational Public Administration
(Prerequisite: PAD 3834)
Four of the following:
MAN 4610 International and Comparative Industrial Relations
INR 4283

CPO 3002
INR 3002 Dynamics of
INR 4931
International Relations, Development and the Third World Introduction to Comparative Politics World Politics
Topics in International Politics
CPO 4034 The Politics of Development and Underdevelopment
(e) Public Budgeting and Finance
(Prerequisite: PAD 4223)
Four of the following:
PAD 4032 Public Choice
PAD 3204 Financing Public
Organizations
ECO 3101 Theory of Price

| ECO 4504 | Public Choice and the <br> Public Finances <br> Manpower Problems |
| :---: | :--- |
| ECP 4222 | and Programs <br> Governmental and <br> Institutional Accounting <br> (Prerequisite: ACC 4122 |
| or 5865 |  |

Option 2: The student can select a recommended area of concentration in a functional area closely related to public administration. They include but are not limited to the following:
(a) Criminal Justice

Two of the following:
CCJ 3020 An Overview of Criminal Justice Systems
CCJ 3600 The Nature and Causes of Crime
CCJ 3100 Law Enforcement Systems
CCJ 3300 Correctional Philosophy, Theory and Practice
And two of the following:
POS 3603 Constitutional Law: Powers
POS 3604 Constitutional Law:
POS 4284 Judical Behavior
POS 4493 Politics of Judical Administration
(b) Applied Urban Administration: Four of the following:
PAD 4603 Administrative Law
PUP 4520 Politics of Urban
Transportation
Decision-Making
ETC 3570
URP 3000 Introduction to Transportation Systems
URP 4021 Urban Land Use Planning

| ARC 4335C | Site Develoment <br> Popics in Urban Politics 4154 <br> and Policy: Urban and <br> Environmental Policy <br> and Design |
| :---: | :--- |
| (c) Social Work |  |
| Students must take these required courses |  |
| in sequence: |  |
| SOW 3113 | Dynamics of Human <br> Behavior in the Social <br> Environment <br> (Prerequisites: PSY 3013, |
|  | DEP 3000 or their <br> equivalents). |
| SOW 3232 | Social Welfare Policy <br> and Services 1 |
| SOW 3313 | Methods of Social Work <br> Practice 1 |

Depending on the individual's interests in the field, he or she may select one of the following with the approval of an advisor:

| SOW 4125 | Dynamics of Human <br> Behavior in the Social <br> Environment |
| :--- | :--- |
| SOW 4233 | Social Welfare Policy and <br> Services II (Prerequisites: <br> SOW 3232, SOW 3511 <br> and SOW 3522) |
| SOW 4322 | Methods of Social Work <br> Practice II (Prerequisites: |
| SOW 3313, SOW 4124 or <br> their equivalents) |  |

Option 3: The student can select an area of concentration to fulfill his/her personal needs by designing an individual program with the advice and approval of the public administration faculty.

## Elective Courses:

Seven courses will consist of general coursework to be completed outside the Department of Public Administration. These courses are to be selected with the approval of the Department of Public Administration from offerings by the Departments of English, Economics, Mathematical Sciences, Sociology / Anthropology, Political Science and elsewhere.

## Master of Public Administration

LOCATION: Tamiami Campus, Bay Vista Campus, and off-campus locations.

## DEGREE: Master of Public Administration

The Master of Public Administration degree within the School of Public Affairs and Services is offered to prepare individuals for successful public service careers. Given, on the one hand, the varying needs of the students, and on the other, the demand for highly qualified professionals, the MPA program is demanding but flexible. Therefore, the Department seeks seri-

## Public Administration

ous students who challenge it to provide them with a genuine learning experience tailored to their individual needs.
Admission Requirements: All applicants must hold a baccalaureate degree from a regionally accredited college or university. In addition, each applicant must have a Graduate Record Examination (GRE) composite score of at least 1000 on the Verbal and Quantitative sections $O R$ a grade point average (GPA) of 3.0 or better (on a 4.0 scale) for all college coursework on the junior and senior level. An applicant with a 3.0 GPA and above is stifl required under Board of Regents policy.

## Program of Study

The Master of Public Administration program is a 36 semester hour program composed of five required courses ( 15 semester hours) dealing with public administration: the political, social and economic environment; management theories and organizational behavior; financial processes; research methodology and public policy.
Required Courses:
Semester Hours
PAD 6053
Political, Social and Economic Context of Public Administration
PAD 6106 Organizational Theory and Administrative Behavior
PAD 6227 Public Finance and the Budgetary Process
PAD 6706

PUP 6005
Research Methods in Complex Public Organizations

Elective Courses: The remaining 21 semester hours can be earned by pursuing one of three different tracks. These tracks are based on the fact that in general terms the students in the program fall into two major categories: those who already have public sector experience, and those who wish to embark on public service careers but whose relevant experience is limited. To accommodate the diverse needs generated by those backgrounds, three tracks are included in the program.
Track I is aimed at persons seeking a more general background in public administration. Such students need to take at least one course from each of five modules encompassing different aspects of public administration. Those students who need to take courses in public personnel administration and quantitative methods may count these courses as part of the five they select from the various modules.
Track Il seeks to accommodate students who wish to incorporate an internship into their program or those already at work in the public sector who wish to link their administrative
experience to their IPPA degree program. Students engaged in an approved internship program may take 6 semester hours by enrolling in PAD 6946, Public Administration Internship. Working under close faculty supervision, these students will be expected to complete significant projects that relate their academic work to their real-life experience as an intern. A similar approach is used for those students already in a public sector position. Their work experience will be used in lieu of an internship. Those students may take 6 semester hours by enrolling in PAD 6907, Independent Study in Public Administration. Also working closely with a faculty advisor, they, too, need to complete a significant project that evaluates their work-related experiences. All Track 11 students need to choose electives from two or more modules to complete the additional coursework needed for the 36 semester hours required for the MPA.
Track III is for those students who wish to concentrate on a particular area relevant to public administration, for instance, public health management, public sector finance and accounting, criminal justice, social work, etc. In such cases, students may take up to 15 semester hours from other departments within the university which offer courses relevant to the area of concentration. Students who select this approach must identify their area of concentration early in their course of study, and all courses to be taken outside the Department of Public Administration must be approved prior to registration. Any remaining course work required to complete the 36 semester hour program is to be chosen from elective courses in Public Administration.

| Module I: Values and Administration |  |
| :---: | :---: |
| PAD 5041 | Values and Technology |
|  | in Modern Society |
| PAD 6035 | Public Interest and the |
|  | Public Trust |
| PAD 6042 | Democracy and the |
|  | Administrative State |
| PAD 6605 | Administrative Law |
| Module II: Organizational Behavior |  |
| PAD 5427 | Collective Bargaining |
|  | in the Public Sector |
| *PAD 6417 | Public Personnel |
|  | Administration |
| PAD 6437 | Dynamics of |
|  | Individual Growth |
| PAD 6109 | Organizational |
|  | Development and Change |
| Module III: Quantitative |  |
| *PAD 6701 | Quantitative Methods |
|  | and Computer Skills |
| CIS 6204 | Management |
|  | Information Systems |
| PUP 6006 | Public Policy Analysis |


| Module IV: Administrative Issues |  |
| :---: | :---: |
| PAD 5435 | Administrator and the |
|  | Role of Women |
| PAD 5443 | Public Administrator and Media Relations |
| PAD 6043 | Government and Minority |
| Module V: State and Local Governments |  |
| PAD 6816 | Regional and State |
|  | Government |
|  | Administration |
| PAD 6807 | Urban and Municipal |
|  | Government |
|  | Administration |
| . Module VI: International |  |
| PAD 6838 | Development |
|  | Administration |
| PAD 6836 | International Public |
|  | Administration |

*All students will be required to demonstrate competence in quantitative methods and in public personnel administration. Otherwise they need to enroll in the courses designed to provide these skills, PAD 6701 and PAD 6417.

## Course Descriptions

## Definition of Prefixes

CIS - Computer and Information Systems; MAN - Management; PAD - Public Administration; PUP - Public Policy.

CIS 6204/MAN 6830 Management Information Systems Introduction to the application of computers to information processing problems in organizations. This includes a survey of the basic computer hardware and software concepts necessary for users to work with information processing personnel. The rudiments of a computer programming language will be taught, and applied to data processing problems. Consideration will also be given to the managerial aspects of information systems planning and development.
PAD 3033 Administrators and the Legislative Process
A study of executive-legislative interactions; the impact of legislation and legislative processes on administrative policy decisionmaking and implementation; the influence of administration on the legislating process.

## PAD 3034 Public Policy and Its

 Administration(3)

Examines the formulation, implementation and evaluation of governmental efforts at federal, state and local levels.
PAD 3204 Financing Public Organizations (3) Financial management in public organizations. The securing of funds through taxes and bond issues. The management of funds, and expenditure decisions.
(Continued)

# Public Administration 

PAD 3413 Organizational Group Processes (3) The impact of various organizational climates, tasks, roles and reward systems, on the behavior of both the individuals and groups of employees in public organizations. Particular attention is given to alienation and motivation in job effectiveness and Public Service.

PAD 3430 Personal Growth and Administrative Development
The administrator as a person. Development of interpersonal skills. Self evaluation and career planning. Training and education for the public service sector.
PAD 3702 Quantitative Techniques for the Public Sector
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. Prerequisites: STA 3122, or COP 3112, or equivalent.
PAD 3834 International Comparative Administration
This course is an introduction to a wide range of scholarly and practical ("applied") interests. Emphasis is on institution-building and development administration, particularly within the Third World countries.

## PAD 4024 Concepts and Issues in

Public Administration
The 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
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

Theories of value: ethical systems and their influence on administration, behavior and prozess: the administrator as an ethical actor: value conflict and resolution; the philosophical basis of American thought.
PAD 4103 Politics of Administrative Organization
The role of political processes in relationship to rublic organizations and the types of intra- and nter-organizational politics which are unique to rublic organizations. Effects of these political rocesses upon organizational performance and heir role in promoting or thwarting organizaional change.

## PAD 4104 Organization and

 Administrative TheoryHistorical survey of theories of public organization and of contemporary and emerging theories and management issues. With special attention to the role of bureaucratic theory and behavior. Case investigation of bureaucratic experience in federal, state and local levels will be conducted.

## PAD 4110 Administrative Interaction in the Public Sector

Definition and analysis of administrative interfaces 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 Public Sector Budgeting
The theory and practice of various approaches to budgeting, including time-item, performance, PPBS budgeting. Special emphasis on the role of the budget in shaping the program and performance and policy direction of public organizations.

## PAD 4414 Personnel Skills for

Administrators
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 govern* ment.

PAD 4415 Administration of Personnel Resources
Problems of training in government service and management of human resources development; the concept of civil service career systems; evaluation of public personnel systems; human relations in supervision; and personnel theory are examined.

PAD 4432 Administrative Leadership and Behavior
Designed to expose students to a systematically related set of concepts for diagnosing human behavior in organizations; and to establish a positive value for the analysis of problems involving people, structure, environment, task technology, and situational climate.

PAD 4603 Administrative Law
Surveys the principles of law from the perspective of the public administrator; administrative procedure; procedural due process; delegation of legislative power; regulatory administration; conflict-of-interest statutes. etc.
PAD 4804 Government and Administration of Metropolitan Areas
An intensive analysis of administrative problems in large complex urban areas encompassing many political entities. Examines overlapping relations among municipalities with special attention given to Dade County as well as current trends in public management and future directions for change.

## PAD 4905 Independent Study in Public

 AdministrationIndividual conferences, supervised readings; reports on personal investigations; and similar undertakings. Prerequisite: Consent of faculty sponsor and Department Chairperson required.

## PAD 5041 Values and Technology in Modern Society

Surveys personal and societal value assumptions in the context of the technological society. Examines organizational-societal value structures, and the ways in which technology creates rapid change and new alternatives in values. Also interrelationship of the past, present and future is explored, through futurism and forecasting techniques.

PAD 5427 Collective Bargaining in the Public Sector
The course deals with the nature and implications of collective bargaining for managers and employees in (and students of) public organizations. The course emphasizes similarities and differences between the private and public sectors, as they apply to collective bargaining.

## PAD 5435 Administrator and the Role of Women

The course is designed for women and men who are interested in moving into management positions, or who have done so and want to broaden their understanding of the changing role of women. Classes will allow for experimental as well as academic exploration of the issues. The course will also explore design, implementation, and evaluation of affirmative action programs.

## PAD 5443 The Public Administrator and

 Media RelationsSurveys the government-mass communication media relationship, and then concentrates on the ways in which public managers handle media relations. Emphasis throughout is placed on questions of information-handling unique to public organizations, involving, for example, adherence to Florida's Sunshine Law and the Federal Freedom of Information Act.
PAD 6035 Public Interest and the Public Trust
Analysis of the meaning of the public interest, using both experimental and cognitive tools. The purpose is to allow individuals in the course to clarify their current definitions of the concept, and to be exposed to alternative points of view. The course is intended for everyone in the public sector, and all those who have the term "public" in their repetroire of justifications.

## PAD 6042 Democracy and the

Administrative State
Juxtaposes the contemporary administrative condition of American government with the values of the democratic state. Different ap-

# Public Administration 

proaches to democracy - in practice as well as in theory - will be analyzed, and their implications for public organizations and individual administrators examined.

## PAD 6043 Government and Minority Group Relations

Explores the pressing contemporary issue of the relationship between government and minorities. Examines the clash between established institutional values and minority group values, and surveys remedial programs aimed at dealing with the problem. Comparative case studies will be used to analyze public agencies internal relations with minorities (recruiting, selection, etc.), as well as their different responses to the minority groups they serve.

## PAD 6053 Political, Social and Economic <br> Context of Public Administration (3)

 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

Historical perspective and philosophical foundations of contemporary and emerging organization theory and administrative behavior, with emphasis on concepts of administrative leadership, the organization's members and systems, group dynamics, socio-psychological aspects of organization and management.

## PAD 6109 Organizational Development and Change

Contemporary approaches to improving the overall effectiveness of public organizations through the utilization of the applied behavioral sciences: personal and executive development programs, team building, action research, etc. Survey of research on the effects of organizational development programs, with special reference to public organizations.

## PAD 6227 Public Finance and the Budgetary Process

Examines the theory and practice of public budgeting and its relationship to the administrative processes of control, management and planning. Special emphasis will be given to the social balance question; the kinds and scope of government expenditures; the fiscal role of government in a mixed economy; sources of revenue available to government; administrative, political and institutional aspects of the budget and the budgetary process; and problems and trends in intergovernmental financial relations.

PAD 6417 Public Personnel Administration (3) 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 (3) This course focuses on the importance of small group theory to the personal growth of the administrator, and the role of interpersonal abilities in effectively serving client groups. The course also deals with the expansion of the phenomenological world view of each student; and will look at existential theory and the dilemma of personal growth.

## PAD 6605 Administrative Law and Procedures

 Emphasizes the responsibilities public administrators have under local, state, and federal laws. Explores such concepts as client responsiveness under the law; the regulatory process; state administrative law systems; the executive order process; the relationship between administrative law and the checks-and-balance system; discretionary justice; and others.
## PAD 6706 Research Methods in Complex Public Organizations

Theories and concepts of research and evaluation. Specific focus given to action components of the research process: design and formulation, strategies and methodological tools for conducting research. Discussion of the role of research in administrative decisions and in testing ways to implement public policy. A review of contemporary critiques on research design.

PAD 6807 Urban and Municipal
Govemment Administration 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
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

 AdministrationThe 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
(3)

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

 AdministrationIndividual 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

(1-6)
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 6946 Public Administration Internship

(1-6)
Supervised work in a public or quasi-public organization. Should not be undertaken until completion of required courses in public administration program. Consent of faculty advisor and Department Chairperson required.

## PUP 6005 Public Policy

An intensive analysis of the normative theories of public policy making, with emphasis on the processes by which policy choices are made and implemented by government agencies. The current trends and perspectives of effective policy development (such as participatory democracy, multi-valued choice, rationality versus extrarationality, policy environments, and policy roles of proactive public administration) are examined.
PUP 6006 Public Policy Analysis and

## Evaluation

(3)

A framework for evaluating public policymaking will be presented. The emphasis will be on criteria and methodologies available for

## Social Work

choosing among alternative courses of action. The systems approach, alternative futures, and nth-order consequences of policies will be analyzed.
PAD 6701 Quantitative Methods and Computer Skills
(3)

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.)

## Social Work

L. Yvonne Bacarisse, Associate Professor and Chairperson
Sanford Kravitz, Distinguished Professor
Monte Koppel, Professor
James E. Garrett, Associate Professor
Rosa Jones, Associate Professor
Julia Nooe, Associate Professor
Magaly Queralt, Associate Professor
Betsy Smith, Associate Professor
Esther Blynn, Assistant Professor
Mary Helen Hayden, Assistant Professor
The Department of Social Work offers graduate and undergraduate studies leading to the Masters and Bachelors degrees in Social Work.

This profession requires a high degree of knowledge, skill, and dedication. The desire and ability to work effectively with people and to help solve social problems demands a scientific understanding of society and human behavior; skills of social work practice; and identification with values of the profession.

## Bachelor of Science in Social Work

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 four semester 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.
LOCATION: Bay Vista campus only. - Courses may be offered on Tamiami Campus or other locations.
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:
Semester Hours
Required Courses: 45
SOW 3113 Dynamics of Human Behavior in the Social Environment 1 3
SOW 3125 Dynamics of Human Behavior in the Social Environment li 3
SOW 3232
SOW 3233
SOW 3302
SOW 3313
SOW 3403 Methods of Community
SOW 4322 Methods of Social
SOW 4332 Work Practice ll 3
$\begin{array}{lll} & \text { Work Practice lll } & 3 \\ \text { SOW } 4511 & \text { Field Experience } 1 & 8\end{array}$
SOW 4512 Field Experience ll 3
SOW $4522 \quad \begin{aligned} & \text { Integrative Field } \\ & \text { Seminar l }\end{aligned} \quad 1$
SOW 4523 Intergrative Field
Seminar II 1
Electives: with approval of the faculty advisor

Remarks: Students should be aware that courses in this program are sequenced. Students must check with their advisors for pre- and co-requisites courses. A grade of C or better in all courses required for the major is necessary for graduation.

## Course Descriptions

Definition of Prefixes
SOW - Social Work.
SOW 3113 Dynamics of Human Behavior in the Social Environment $t$
(3)

An examination of the psychosocial foundations of social work practice, focusing on the analysis of factors affecting human development and functioning in relation to social systems. Prerequisite: PSY 30I3, or equivalent.

SOW 3125 Dyanmics of Human Behavior in the Social Environment II
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 3232 Social Welfare Policy

 and Services IThis 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. Prerequisite: POS 3044 or its equivalent.
SOW 3233 Social Welfare Policy

> and Services II

This course considers characteristics and processes common to ogranizations 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 3232 and SOW 3302.
SOW 3302 Introduction to Social Work
Practice
An overview of the profession of social work within the institution of social welfare. Historical and philosophical development, field of practice, values and ethics.
SOW 3313 Methods of Social Work Practice I
An overview of social work intervention for the beginning practitioner. Generic values, attitudes and processes in client-worker relationshipbuilding 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 3302, or their equivalents. Corequisite: SOW' 3125.

## SOW 3350 Techniques of Interviewing

A competency-based course designed to provide students with basic interviewing skills. Emphasis is on acquisition of interview behavior rather than theory. Audio and videotaping, roleplaying, simulations, and micro-counseling training methods will be utilized. Prerequisites: SOW 3113 and permission of Instructor.

## Social Work

SOW 3403 Methods of Community Research (3) 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. Prerequisite: STA 3013 or its equivalent.
SOW 3703 Self-Awareness, SelfModification, and Service
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 EducationSocial Work I

A special program permitting social work majors to work in social agencies during alternate semesters, up to a maximum of two semesters. Written reports and supervisory evaluations will be required. This experience may not be substituted for SOW 4511 or SOW 4512. Prerequisites: Three social work courses and permission of Chairperson.

## SOW 4193 The Systems Approach in the Social Services

This course focuses on general systems theory and its implications for social service delivery. Emphasis is on systems approach models elaborated for social service system analysis. Prerequisite: Permission of the instructor.
SOW 4242 Child Welfare Policies
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 4300 Child Welfare Practices
Theories and models of intervention with children and adolescents will be examined within the context of the family. The main focus of the course will be on the special diagnostic and treatment skills necessary for the effective intervention with this client population. Prerequisites: SOW 3125 and SOW 3313 or permission of instructor.

## SOW 4322 Methods of Social Work Practice II

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

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 4511 Field Experience I
(8)

This is the first 315 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 3233, SOW 3313, SOW 3302, SOW 3125 , and 3403 , or their equivalents. Corequisites: SOW 4522 and SOW 4322.

SOW 4512 Field Experience II
This second 315 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 4511, SOW 4522, and SOW 4322. Corequisites: SOW 4332 and SOW 4523.

SOW 4514 Field Experience III (4 or 8) 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 4522 Integrative Field Seminar I (1) This course is one-hour seminar, to be taken concurrently with SOW 3511 and SOW 4322, 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 4113, SOW 3233, SOW 3313, SOW 3302, SOW 3125, and 3403, or their equivalents. Corequisites: SOW 451 I

## and SOW 4322.

SOW 4523 Integrative Field Seminar II (1) 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 4511, SOW 4522, and SOW 4322, or their equivalents. Corequisites: SOW 4332 and SOW 4512.

SOW 4621 Crises in the Lives of Women
Introduction to special experiences in the lives of women which might lead women to seek supportive counseling or other professional assistance. Topics include rape, abortion, sex discrimination, menopause, childbirth.

## SOW 4675 Social Work Philosophy and Values

This course is designed to investigate philosophical and social thought in order to explore concepts of social welfare and to assist students in the identification and clarification of values inherent in the social work profession.

SOW 4905 Individual Study
(1-6)
Individually selected program of supervised personal study related to specific social issues. Prerequisite: Permission of instructor.
SOW 4949 Co-Operative Education Social Work II
A continuation of SOW 3949. Prerequisites: SOW 3949 and permission of Chairperson.

SOW 5217 Seminar in Social Work
An exploration of various critical issues of concern to the social work profession. Prerequisite: Permission of instructor.
SOW 5272 Social Welfare: Cross-Culture Comparisons
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 5281 Legal Issues in Social Work Practice

This course will introduce the student to important legal aspects of social welfare policy, of social services, and of client rights. It should enable the social worker to provide knowledgeable referrals to legal services and interact effectively with courts and legal counsel. Prerequisite: Permission of Instructor.

## Faculty

## SOW 5351 Intervention Strategies in Marriage and the Family

This advanced practice course will help the student understand and apply various means of intervention with the problem family. Emphasis will be placed on the marital partners as ihe core subsystem of the family. Attention will be given to various family therapy theorists. Prerequisite: Permission of the Instructor.
SOW 5354 Techniques for Prevention and Early Invervention
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 subspecialty. 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
Introduction to experimental and quasiexperimental 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 3403 or equivalent.

## SOW 5436 Evaluating Social Service Programs ll

Implementation of program evaluation proposal generated in SOW 5435. This seminar will provide actual field experience in data collection, analysis, and program evaluation report writing. Prerequisite: SOW 5435.
SOW 5643 Understanding the Process
of Aging
This course is designed to develop an understanding of the 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

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
Individually selected program of supervised data
collection and analysis. Prerequisite: SOW 3403 or permission of instructor.

## MASTER OF SOCIAL WORK

The Department offers an integrated program which leads to the degree of Master of Social Work. The program is designed to give the student basic professional education for the practice of social work. All students will be required to acquire or to possess the common base in the areas of professional study considered essential in social work education: human behavior and the social environment, social welfare policies and services, research, and social work practice. The theory acquired in the professional courses will be applied in supervised field experiences in social agencies.

All students will be expected to select one of three specializations - Services to the Elderly, Services to Children and Families, or Administration and Community Development - and to plan a course and field practicum program that supports practice in the specialized field. The program will emphasize administrative skills instead of the more traditional social work programs that emphasize clinical skills. With the help of faculty, students will develop individualized programs in the specializations that seem most likely to meet their educational needs and contribute to their professional objectives.

For specific information regarding the graduate social work program of study and degree requirements contact the Department directly.

The program is in the process of applying for candidacy for accredidation by the Council on Social Work Education.

## ADMISSION REQUIREMENTS:

Applicants to the graduate program are required to meet the minimum standards set forth by the Florida Board of Regents and the Graduate Social Work Program. This includes a combined score of 1000 on the Verbal and Quantitative Aptitude Tests of the Graduate Record Examination or at least a "B" ( 3.0 on a 4 point scale) average in all upper-level division work. Application procedure for admission to graduate study will be found in the discussion of university procedure for admission to graduate study in the current F1U catalog. An application to the social work graduate program, a personal narrative and three letters of reference will be required for admission. All applicants should have had at least one college-level course in sociology, and/or cultural anthropology, psychology, political science (American Government), economics, and statistics.

Applicants with a B.S.W. degree from a program accredited by the Council on Social Work Education will be considered for admission to advanced standing. Advanced standing is not automatically granted. It is subject to the fol-
lowing additional requirements: A 12 semester hour summer session, successful completion of the summer session with grades of " $B$ " or better. Final admission to the second year program will be governed by successful completion of the special summer session.

All applicants must be approved for admission by the faculty of the Department of Social Work.

## School of Public Affairs and Services

Dean
Associate Dean
Assistant Dean
Chairpersons:
Criminal Justice
Health Services
Administration
Public Administration
Social Work

## Faculty

Bacarisse, L. Yvonne, M.S.W., A.C.S.W. (Tulane University), Associate Professor and Chairperson, Social work
Blynn, Esther, M.S.W., A.C.S.W. (Columbia University), Assistant Professor, Social Work
Clark, Harcourt I., M.P.A. (Florida International University), Assistant Professor, Criminal Justice
Clark, Robert S., Ph.D. (New York University), Professor, Criminal Justice
Corbett, John G. PH. (Stanford University), Assistant Professor, Public Administration
Davis, Donald, Ed.D. (University of Minnesota), Associate Professor, Health Services Administration
Dunaye, Thomas M., Dr.P.H. (U.C.L.A.), Professor, Health Services Administration
Frankenhoff, Charles, Ph.D. (Georgetown University), M.PH.. (Johns Hophins University), Associate Professor, Health Services Administration
Garrett, James, Ph.D. (St. Louis University), Associate Professor, Social Work
Hayden, Mary Helen, M.S.W., A.C.S.W. (Florida State University), Assistant Professor, Social Work
Heise, J. Arthur, Ph.D. (Syracuse University), Associate Professor and Chairperson, Public Administration
Herbert, Adam W., Ph.D. (University of Pittsburgh), Dean and Professor, School of Public Affairs and Services
Jones, Rosa L., M.S.W., A.C.S.W. (Florida State University), Associate Professor and Director of Field Instruction, Social Work

## Faculty

Klingner, Donald G., Ph.D. (Southern California), Associate Professor, Public Administration
Koppel, Monte H., Ph.D., A.C.S.W. (New School for Social Research), Professor, Social Work
Kravitz, Sanford L., Ph.D. (Brandeis University), Professor, Social Work
Lewis, Ralph G., Ed.D. (New York Lniversity). Associate Professor, Public Administration
Marques, Jose A., M.S.W., A.C.S.W. (Barry College, Miami) J.D. (Univeristy of Hatana), Associate Professor and Director of Field Internship, Criminal Justice.
Nooe, Julia A., M.S.W., A.C.S.W., C.S.W. (Tulane University), Associate Professor, Social Work
Park, Myung, Ph.D.(University of Southern California), Associate Professor and Chairperson Public Administration

Queralt, Magaly, M.S., Ed.S.(Barry College), Associate Professor, Social Work
Rizzo, Ann-Marie, Ph.D./Syracuse University), Assistant Professor, Public Administration
Salas, Luis P., J.D. (Wake Forest Unicersity), Assistant Professor, Criminal Justice
Schneider, Ronald, Ph.D.(University of Southern California), Assistant Professor, Criminal Justice
Shearn, Regina B., Ph.D. (Florida State University), Associate Professor, Criminal Justice
Smith, Betsy A., Ph.D. (State University of New York at Buffalo), Associate Professor, Social Work
Snow, Robert E., J.D. (Florida State University), Associate Professor and Chairperson Criminal Justice
Surrette, Ray, Ph.D. (Florida State University), Assistant Professor, Criminal Justice

Thomas, Henry B., D.P.A. (University of Southern California), Assistant Professor, Public Administration
Tuckfield, Jack G., Ed.D. (Florida Atlantic University), Assistant Professor, Criminal Justice
White, Vandon E., Ph.D. (Purdue University), Professor, Health Services Administration Wilbanks, William, Ph.D. (State University of New York), Associate Professor, Criminal Justice

## School of Hospitality Management

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# School of Hospitality Management 

Gerald W. Lattin, Professor and Dean
Anthony G. Marshall, Associate Dean and
Professor
William J. Morgan, Jr., Professor
Norman Ringstrom, Professor
Rocco Angelo, Associate Professor
Michael Hurst, Professor
Richard A. Huse, Associate Professor
Charles Ilvento, Associate Professor
Dennis A. Marzella, Associale Professor
Leonard Berkowitz, Assistant Professor
Percival Darby, Assistant Professor
Fritz Hagenmeyer, Associate Professor
Elisa Moncarz, Associate Professor
Peter Martini, Assistant Professor
Steven Moll, Instructor
Edwin B. Dean, Visiting Assistant Professor
David Grier, Visiting Assistant Professor
Kevin Robson, Assistant Professor
Alan J. Parker, Associate Professor
Ted White, Assistant Professor
Marshall Kosiner, Visiting Assistant Professor
Donald Greenaway, Visiting Distinguished Professor
Lendal Kotschevar, Visiting Distinguished Professor
Dewitt Coffman, Visiting Distinguished Professor
Lester Williams, Visiting Distinguished 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 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

Each candidate for admission to the graduate program must present his or her score on the Graduate Record Examination or the GMAT and proof of a bachelor's degree from an accredited institution.

To be admitted, a candidate must have maintained a " B " average in all upper divisional work or attain a minimum score of 1000 on the Graduate Record Examination (verbal and quantitative aptitude sections) or attain a minimum score of 450 on the GMAT.

The exact amount of additional work will vary with the undergraduate background of the candidate, but will not exceed 35 semester hours including the required managerial internship program. A maximum of 9 semester 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 9 credit hours per semester.

## CERTIFICATE PROGRAM

The School has a Certificate Program in Hotel and Restaurant Management and one in Travel and Tourism Management. The program is open to international students with a high school education and experience in the industry. A candidate must complete 30 semester hours of course work in a one year period to earn the certificate. The candidate must submit a satisfactory score on the TOEFL exam or its equiv-
alent and a Certificate of Finances document. Specific courses will be tailored to each candidates' needs.

## Undergraduate Study

The School operates on a single major concept in which a core of 49 semester credits is required of all students. The program requires an additional 15 semester credits of electives. Under this system, the student enjoys maximum flexibility in choosing areas of emphasis while being assured of a comprehensive coverage of all areas of hospitality management.

A maximum of 61 semester credits may be transferred from a junior or community college program.
LOCATION: Tamiami Campus only
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Students should complete a minimum of 60 semester hours ( 90 quarter hours) including general education requirements. If a student has completed a minimum of 18 semester hours of general education credits, it is still possible to be accepted into this program. However, the remaining general education requirements need to be completed prior to graduation from Florida International University. Listed below are courses recommended to enter this upperdivision major.
Recommended Courses: Semester Hours

| Accounting* | 6 |
| :--- | :--- |
| Psychology | 3 |
| Economics | 3 |
| Public Speaking | 3 |

Remarks: *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. Other recommended electives will not be required as part of the B.S. program.
Course Requirements for Bachelor of Science Degree
Management, Accounting, Finance \&
Semester Hours
Information Systems
9

HFT 3413 |  |
| :--- |
| Procedures |

or
HFT 3423 Hospitality
HFT 4464 Interpretation of
Hospitality Financial Statements
HFT 4474 Profit Planning \& Decision Making

## School of Hospitality Management

Semester Hours
Food and Beverage Management 16
FSS 3221 Introduction to
Commercial Food Production

3
FSS 3232 Intermediate Quantity Food Production 3
FSS 3234
Volume Feeding Management
,
Basic Meat Science 3
Restaurant
Management
FSS 3243
HFT 3263

Administration
HFT 3323
Physical Plant
HFT 3453
Management
3
Hospitality Industry
Management
Marketing StrategyPhase 1
Marketing StrategyPhase II
HFT 3514
HFT 3603
HFT 3700
HFT 3945
HFT 4234
Electives:
Law as Related to the Hospitality Industry 3
Fundamentals of Tourism

3
Advanced Internship 3
Union Management Relations

5

## Graduate Study Hotel and Food Service Management

LOCATION: Tamiami Campus only<br>DEGREE: Master of Science in Hotel and Food Service Management

Semester Hours
Required Core Courses: 21
HFT 6246
Organizational Behavior in the Hospitality Industry

HFT 6586
HFT 6446

HFT 6477

HFT 6296
HFT 6697
HFT 6916

Research and Statistical Methods

3
Hospitafity lndustry
Organizational Information Systems 3 Financial Management for the Hospitafity Industry
HFT 6296 Seminar in Hospitality Management
Hospitality Law Seminar3

Hospitality Industry Project
Electives: (5000 and 6000 level)

## Course Descriptions

Definition of Prefixes
FOS - Food Science; FSS - Food Service Systems; HFT - Hospitafity, Food, Tourism.

## UNDERGRADUATE

FOS 4201 Sanitation in Food Service Operation
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.
FSS 3221 Introductory Commercial Food Service Production
Provides an introduction to commercial food preparation, nutrition, standard product identification, storage and supervisory techniques in the area of food preparation. Course includes classroom instruction, demonstrations and actual cooking experience.
FSS 3232 Intermediate Quantity Food Production Techniques
An advanced commercial food production course which provides the student with the opportunity to achieve competence and to develop techniques in the garnishing, pastry, serving, and convenience food areas. Prerequisites: FSS 3221 or equivalent.
FSS 3234 Volume Feeding Management
The facilities of various types of large quantity food operations are utilized, to provide the student with both production and managerial experience. Students will be rotated through production stations and, as managers, will be required to plan menus, supervise preparation and service, handle customer relations and keep accurate accounting records on the 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

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 classicat dishes. The students will utilize conventional methods of preparation as well as convenience foods. Prerequisite: FSS 3221.

FSS 3243 Basic Meat Science
Fundamentals of meat: quality yield, utilization of cuts, availabifity, costing, buying, inventorying, packaging, labor, and trends.

FSS 3272 Beverage Management
An introduction to the identification, use and service of wines and other alcohofic 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 3273 Wine Technology, Merchandising and Marketing
A course in the fundamentals of wine technology (vitacufture and vinification methods). The major types of wine and the factors influencing their quality; principles of sensory evaluation; wine merchandising and marketing.
FSS 4105 Purchasing and Menu Planning
Basic information on sources, grades and standards, criteria for selection, purchasing, and storage for the major foods, including the development of specifications. Consideration of the menu pattern with particular emphasis on costing, pricing, and the work load placed on the production staff. Item analysis and merchandising features are emphasized.

FSS 4245 Advanced Meat Science
An advanced course which considers the variable factors of meat, poultry and fish utilization. Emphasis is placed upon newer techniques in purchasing, maximizing yiefds, 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 wilf be utilized, and field trips to protein processing plants will be made, to emphasize major points. Prerequisite: FSS 3243.
FSS 4315 Institutional Food Service Management
This course brings together basic management techniques and controls that are useful in the area of institutional feeding programs. Federal and state government regulations are studied. Special emphasis is given to hospital food service direction and the National School Lunch Program.
FSS 4333 In-Flight Food Service Management
An introduction to the concepts and managerial techniques specifically related to the inflight food service segment of the hospitafity industry.

## School of Hospitality Management

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 Defines and explains concepts, principles and procedures in evaluating and/or developing varied commercial lood service facilities that will increase profit by reducing investment and operating cost and/or by increasing capacity. Actual installations are intensively reviewed. Current trends in food service methodology and technology are studied in detail, and food service equipment manufacturing processes and distribution economics are observed and evaluated.

## FSS 4614 Food and Beverage Merchandising

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

FSS 5361 Advanced Food Service Operation (3) 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

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
Advanced planning, programming and project documentation for commercial food service facilities. Spatial, environmental and electromechanical design factors are stressed, with particular emphasis on efficiency modulation and investment aspects. Recommended: HFT 3343 or FSS 4431.

## FSS 6834 Food Service Research

The planning, executing, and reporting of an individual research project dealing with significant problems in food service. Students demonstrate an understanding of research techniques through data collection, evaluation and interpretation.
HFT 3000 Introduction to Hospitality Management
A survey course providing an overview of the industry: its history, problems and general operating procedures. Operating executives
from the fields of hotel, restaurant, food service, travel and tourism will be featured periodically.

HFT 3203 Fundamentals of Management in the Hospitality Industry
A basic course in general management to acquaint the student with theories and principles of organization, the tools of managerial decision-making, and the management process, with particular reference to the hospitality industry.

HFT 3263 Restaurant Management
An analysis of the principal operating problems in the restaurant field. Procedures, approaches and techniques of management are explored and developed as they relate to the various categories of restaurants ranging from fast food to gourmet. Industry leaders will present successful concepts of restaurant operation.
HFT 3313 Hospitality Property Management
The problems of cost and operation of pest control, security, parking, general cleaning and upkeep, laundry, fire prevention, pools, tennis courts and care of guest rooms and public space, with emphasis on equipment, personnel, and modern innovations.

HFT 3323 Physical Plant Management
A comprehensive survey of engineering, maintenance and efficiency control in hotels, restaurants and institutions.
HFT 3343 Hotel and Restaurant Planning and Design
Considers analysis, evaluation and scheduling of the economic, technical, aesthetic and merchandising factors involved in the planning, programming and design stages of hotels and restaurants. Actual hotel and restaurant projects will serve as the basis for discussion and student project work.
HFT 3403 Introduction to Management Accounting for the Hospitality Industry
Introduction and practice in accounting processes, and the principles of hospitality management accounting. Prepares the student for work in advanced accounting and financial management. Required for students who have not completed an introductory accounting course.

HFT 3413 Lodging Systems and Procedures (3) 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
The study of an accounting system for hospital-


#### Abstract

ity 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

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 Hospitality Industry

Management

Study of the management tools available lo 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 Strategy-Phase 1 (3) 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.
HFT 3514 Marketing Strategy-Phase II (3) Consideration of all aspects of the advertising element of the promotion mix to execute the corporation's or tourist destination's marketing strategy. Prerequisite: HFT 3503.
HFT 3524 Sales Management for the Hospitality Industry
The course 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 3630 Law as Related to the Hospitality Industry
A basic course in hotel, motel and restaurant law. The student is introduced to the fundamental laws, rules and regulations applicable to the hospitality industry. The case study approach is used to develop an awareness and understanding of the legal problems confronting the executive in his policy and decision making role.

# School of Hospitality Management 

HFT 3700 Fundamentals of Tourism
(3)

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 (3) 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

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 (3) 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
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

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 (3) A survey of land, water and air transportation from an integrated, intermodal frame covering organization, operations, financing, research, regulation, economics and certain social and political factors, as well as contributions made by each mode to the development of tourism.

## HFT 3793 Sociology of Leisure

An introduction to the fundamental, psychological and sociological concepts and theories as they relate to the motivation behind travel and tourism.

HFT 3900-3905 Independent Studies (VAR) With permission from the Chairperson of the Division of Hotel and Restaurant Services, or Division of Travel Services, students may engage in independent research projects and other approved phases of independent study.
HFT 3941 Internship in Hospitality Management
Experience in all the major phases of hospitality operations. Reports are required.
HFT 3945 Advanced Internship in Hospitality Management
Structured management experience in a specialized career in the hospitality industry. Programs include: 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
The problems faced by the supervisor and the executive in managing the human element in the hospitality field. Designed to give the student insight into the varied social and psychological factors present in any employee-employer relationship.

HFT 4234 Union Management Relations in the Hospitality Industry
A comprehensive course covering labor legislation, union history and the day-to-day administration of the labor contract. Emphasis is placed on collective bargaining and the business relationships between union and management.

## HFT 4276 Resort Management

A course designed to focus on the unique problems of resort hotel management and the application of special techniques to meet these problems.
HFT 4293 Restaurant Management Seminar (3) By permission of instructor only. A senior course reviewing current problems and practices, developing policies and procedures and implementing same.

HFT 4444 Computer Systems for
Hospitality Industry Management
A seminar on computer systems and their applications within the hospitality industry. Consideration is given to an understanding of the basic computer hardware and software concepts needed for a manager to communicate with data processing personnel. Prerequisite: HFT 3423.

HFT 4455 Functions of the Hospitality Industry Comptroller
A specialized course designed for students desiring strong emphasis and training in the com-
plex accounting and finance functions of hospitality industry management. Prerequisites: HFT 3423, HFT 3453.
HFT 4464 Interpretation of Hospitality Industry Financial Statements
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 hospjtality industry annual studies. Prerequisites: HFT 3453, HFT 3423, HFT 3413.

## HFT 4474 Profit Planning and Decision Making in the Hospitality Industry

 Study of the decision-making process involved in the development of profit plans through analysis of hospitality industry studies. The establishment of short and long term goals and the means to reach these goals through profit plans. Emphasis on pricing decisions, responsibility centers, variance analysis, cost-volume profit analysis, capital budgeting and tax considerations. Prerequisites: HFT 4464.
## HFT 4485 Seminar in Tax Planning for the Hospitality Industry

Develops tax awareness and the ability to recog. nize 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
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.

## GRADUATE

HFT 5476 Feasibility Studies for the Hospitality Industry
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.

## Faculty

## HFT 5495 Seminar in Hospitality Industry

Financial Management Systems
Visits to various hospitality businesses for seminars with management team members. Lectures, demonstrations and discussion of each operation's methods and procedures, with emphasis on accounting and control systems. Prerequisite: Permission of the instructor.
HFT 5595 Problems in Marketing
Team-work analysis and recommended solution of an actual marketing problem which has been posed by a local operator. Prerequisite: HFT 3503.

HFT 5901, 5906, 5911 Independent Studies
(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

Study of motivation, perception, learning, attitude formation, incentive theory, and job satisfaction, with emphasis on leadership and group task performance.
HFT 6246 Organizational Behavior in the Hospitality Industry
A survey of the concepts of organizational behavior and industrial psychology theory, from both the research and practical points of view. The course is designed to assist students in making sound decisions in the hospitality area by making them sensitive to the organizational parameters which influence their decisions.

HFT 6256 International Hotel Operations (3) 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
A study of the hospitality industry as it is affected by its environment and in turn attempts to influence the various elements in this environment.

HFT 6296 Seminar in Hospitality Management
Attention is 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
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
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

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
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
Advanced investment methods and opportunities with emphasis on securities of the hospitality industry, financing techniques, syndication, negotiations.
HFT 6487 Taxation Federal and State
A study of state and federal taxation concepts, including tax management for individuals, partnerships, and corporations engaged in the hospitality field.
HFT 6586 Research and Statistical Methods (3) A study of basic research methodology as applied to a variety of hospitality industry research projects. Techniques for data collection, and interpretation, and methods of reporting are considered.
HFT 6596 Marketing Management
Team-work analysis and recommended solution of an actual marketing problem which has been posed by a local operator.
HFT 6697 Hospitality Law Seminar
New laws and their impact on the hospitality industry are examined. Students research and publish "industry alert bulletins," explaining the
impact of new legislation on the hospitality industry. Prerequisite: HFT 3603 or equivalent.
HFT 6916 Hospitality Industry Project
An individualized research project dealing with current problems in the hospitality industry. Topics and research methods must be approved by the graduate faculty before registration for the course.
HFT 6946 Graduate Internship
Structured graduate management experience in a specialized career in the hospitality industry. Programs include: food and beverage management, rooms division management, sales management, in flight catering management, fast food service management and restaurant management. Prerequisite: Permission of the instructor.

## School of Hospitality Management

Professor and Dean Gerald W. Lattin Associate Dean, Chairperson of

Hotel and Food Service
Management
Anthony G. Marshall

## Faculty

Angelo, Rocco M., M.S. (University of Miami), Associate Professor, Management
Berkowitz, Leonard, B.A. (University of Maine), Visiting Assistant Professor, Meat Sciences
Coffman, Dewitt Visiting Distinguished Professor
Darby, Percival, M.S. (Florida International University), Assistant Professor, Counseling and Placement
Dean, Edwin, Visiting Assistant Professor, Union/Management Relations
Greenaway, Donald, Ph.D., Washington State
Grier, David R., Visiting Assistant Professor, Beverage Management
Hagenmeyer, Fritz, G., M.A. (Cornell University), Associate Professor, Hotel Engineering
Hurst, Michael E., M.A. (Michigan State University), Professor, Hotel and Restaurant Management
Huse, Richard A., M.S. (Niagara University), Associate Professor, Travel and Tourism
Ilvento, Charles L., M.B.A., C.P.A. (Cornell University), Associate Professor, Accounting and Information Systems
Kosiner, Marshall S., B.S., (Stetson University), Visiting Assistant Professor, Tourism
Kotschevar, Lendal, Ph.D., Visiting Distinguished Professor

Lattin, Gerald W., Ph.D. (Cornell University). Dean, School of Hospitality Management, Professor, Management
Marshall, Anthony G., J.D. (Syracuse University), Associate Dean, School of Hospitality Management, Professor, Law and Finance
Martini, Peter C., M.S. (Florida International University), Assistant Professor, Food Management
Marzella, Dennis A., M.B.A. (Michigan State University), Associate Professor, Marketing
Moll, Steven V., M.S. (Florida International Universily), Instructor, Accounting
Moncarz, Elisa, B.B.A., C.P.A. (Bernard/ Baruch College, City U. of New York), Associate Professor, Accounting and Information Systems
Morgan, William J., Jr., Ph.D. (Cornell Unicersity), Professor, Hotel and Restaurant Management
Parker, Alan J., Ph.D. (Columbia University), Associate Professor, Informalion Systems Management
Ringstrom, Norman H., Ph.D. (State University of lowa), Professor, Hotel Management
Statler, E.M., Professor
White, Theodore, Assistant Professor, Club Management
Williams, Lester Visiting Distinguished Professor

## School of Technology



## General Information

The School of Technology is composed of 11 departments and programs committed to the development of professionals who will serve the community in a wide variety of professional fields. In addition, there are three units in the School of Technology solely devoted to research and other creative activities.

Bachelor's Degree Programs are offered in the following fields of study:

Civil Engineering Technology
Communication
Construction
Architectural Technology
Interior Design
Construction Engineering Technology
Construction Management
Dietetics and Nutrition
Electrical and Mechanical Engineering Technology
Home Economics

## General Home Economics

Apparel Management
Industrial Systems
Medical Record Administration
Medical Technology
Occupational Therapy
Physical Therapy
Master's Degrees can also be earned in the following fields of study:

Dietetics and Nutrition
Environmental and Urban Systems
Undergraduate Professional Certificates are available in

Food Technology
Heating, Ventilation and Air Conditioning Design
Industrial and Labor Relations
Industrial Safety
Production and Manufacturing

## 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. Many programs offer an experiential component concurrent to classroom instruction. Clinical affiliations and field placements are available in local community agencies and businesses as well as other locations in Florida and throughout the United States.

The School provides each student with the opportunity to develop marketable skills and to obtain an education which all prepare him or her for a rewarding career and 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.

## SPECIAL FEATURES

The School is actively engaged in a number of special programs as a service to the community and the University. One of these activities is a

Technical/Vocational Education program in cooperation with the School of Education. Another is 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. The technology faculty is actively engaged with business, industry and government seeking the solutions to technical and operational programs. 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.

A Drinking Water Research Center was established within the School in 1976 to conduct research to determine methods for producing high quality drinking water.

A Center for Creative Communications and a Labor Research Center are also affiliated with the School.

## GENERAL REQUIREMENTS FOR A BACCALAUREATE DEGREE

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 120 semester credits including transfer credits. Some majors require more than the minimum number of credits.*
2. Complete at least 30 semester credits in the School of Technology.
3. Attain 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 of the State of Florida for the bachelor's degree by taking those courses at the community college or by a combination of transfer credit, CLEP credit and course credits awarded by F.I.U.
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 or at least two semesters prior to application for graduation.
7. Have proficiency in the use of language and mathematics appropriate to his or her program and career objectives.
*Specific requirements beyond the minimum
requirements are described in the sections devoted to the various departments in the School.

## 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 fouryear 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.
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,)
3. Junior Level ( 60 semester hr. 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 60 transfer credits toward the bachelor's degree. A transfer student from a four-year college may not receive more than 90 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, by careful selection of electives. The college parallel student planning to major in Technology should select a preprofessional 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 experiences, and non-traditional learning experiences. Since each student may meet re-

# Communication 


#### Abstract

quirements 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 of 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 or at least two semesters prior to application for graduation. A student who does not comply with this requirement may delay his or her graduation.


## DEPARTMENT MAJORS

Some departments olfer 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 a 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. Some 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. An advisor 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 semester) with the advisor is urged in order to review progress and register for each succeeding semester. Such contact is required until an approved program of study is completed. Special problems of the student who is undecided about a technology major may be referred to the Associate Dean.

## CREDIT FOR NON-TRADITIONAL EDUCATIONAL 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 17 Semester hours. A student must be fully accepted to a degree program and must have completed at least two semesters of upper-divison 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.

## 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 semesters in school full-time and fully employed in industry in a technical position directly related to his or her major. Academic credit (normally, 3 credits per semester) 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 Associate Dean. Because of the requirement for three work periods, a student should enter the program during the first semester 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.

## ACADEMIC APPEAL PROCEDURE

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.

## MASTER OF SCIENCE DEGREE PROGRAMS

The School has two approved Master of Science degrees, Environmental and Urban Systems, and Dietetics. Prospective graduate students should see Dietetics and Nutrition or Civil and Environmental Engineering Technology sections on this catalog or contact the coordinator of the M.S. programs in Engineering Technology or in Dietetics and Nutrition for information regarding these programs.

## Department of Communication

David J. LeRoy, Professor and Chairperson<br>James E. Couch, Associate Professor<br>Eric S. Katz, Assistant Professor<br>David L. Martinson, Associate Professor<br>Morgan Rees, Visiting Instructor

The Communications Department offers a wide variety of experiences to students interested in a career in advertising, broadcast production or news, print journalism and public relations.
LOCATION: Bay Vista Campus
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION COURSES:
Student Entrance Requirements
Applicants to the department should have already completed their associate degree at an accredited junior college, or equivalent course work from another accredited university or college. All such previous course work will be

## Communication

evaluated to ascertain that the applying student has met the university's general education requirements, and deficiencies must be corrected within two semesters. In all previous academic course work, the student must have a grade point average of 2.5 .

Applicants are expected to have a command of the English language. During the first semester of residence, the applicant must obtain a satisfactory grade on the department's English writing and grammar test given during the first week of each semester. The applicant must also successfully pass the department's typing test during the same period. Students who do not obtain satisfactory grades on either test cannot enroll in Journalism 3100 and must enroll in appropriate workshops offered at the Bay Vista campus.

## Transfer Credit Limits

Students entering the program can transfer no more than six (6) credits of lower division course work in journalism, telecommunications, public relations, advertising or film. Students cannot transfer credits for courses in the core, with the exception of the international experience. Under exceptional circumstances, the department reserves the right to require an applicant to take JOU 3100 , even if the student successfully completed a similar course at another institution.

## Acceptable Performance

Only grades of C or better in departmental courses shall apply for graduation.

## Requirements for Graduation

Core Course Requirements
In addition to any sequence requirements, each student must also enroll in the following:

1. MMC 4602 Mass Media and Society
2. MMC 4200 Mass Communication Law
3.Internationat Experience. In keeping with the mission of FIU, the department requires that the student demonstrates a significant contact with a culture outside of that of the United States. Fulfillment of this requirement is to be demonstrated by the student and written satisfaction of compliance shall be placed in the student's file after it has been reviewed by his/her advisor and the departmental chairperson.
This requirement can be fulfilled by any of the following:
A. One or more academic term(s) spent in a foreign country with an accredited school or university.
B. One year's full time employment in a foreign country.
C. Attendance and full time participation in a media related conference or seminar that deals with international issues and the mass media.
D. Errollment and successful completion of MMC 4302 Comparative Systems and
one other three credit university course dealing with international relations, politics, history or culture.

## Journalism-News Sequence

News courses in the department make no distinction between print or electronic journalism. The following required courses generally contain exercises for both media forms.
I. Besides the core courses students are required to take the following courses:
JOU 3100 News Reporting
JOU 4108 Speciality Reporting
JOU 4108 Depth Reporting
II. Students must pursue their individual interests by taking six courses from the following: JOU 3101 Advanced News Reporting JOU 3200 Editing
JOU 3600 Photojournalism
RTV 3210 Elements of Telecommunication Production
RTV 4466 ENG (Electronic News Gathering Techniques)
MMC 4500 History of The Mass Media
MMC 4400 Research Methods in The Mass Media
MMC 4995 Media Presentations
PUR 3000 Principles of Public Relations
ADV 3000 Principles of Advertising
RTV 3000 Principles of Telecommunication
RTV 4302 Broadcast News Reporting
FIL 3000 Principles of Film
III. Minor(s)
(1) From the department's approved list of courses, the student must select one course from each of the following subject areas: Statistics, Psychology, Economics, Political Science and a course in Sociology
(2) In consultation with the sequence director, the student must develop a coherent series of courses of 15 to 18 credits to comprise a minor. Upon agreement, the Minor Course Plan shall be placed in the student's file. Students are encouraged to consider minors in social sciences, business and modern languages. Attention should also be given to the certificate programs available in the College of Arts and Science.

## Telecommunication-Management Sequence

I. Besides the core courses the student must complete each of the following:
RTV 3000 Principles of Telecommunication
RTV 3500 Programming \& Audience Analysis
RTV 4500 Advanced Programming

RTV 3210 Elements of Telecommunication Production
MMC 3800 Media Hanagement
MMC 4800 Case Studies in Media Management
MMC 4400 Research in The Mass Media
1I. Select one course from the following:
PUR 3000 Principles of Public Relations
ADV 3000 Principles of Advertising
FJL 3000 Principles of Film
MMC 4509 Public Opinion
MMC 4995 Media Presentations
III. Minor(s)
(1) Students must select in consultation with their advisor one (1) course from each of the following from the department's approved list; Accounting, Statistics, Sociology and Consumer Behavior.
(2) Students must minor (for approximately 20 credit hours) in one of the following fields: Management, Marketing, Modem Languages, International Relations, Ethnic Relations or Consumer Affairs.

## Telecommunication-Production Sequence

1. Besides the core courses, the student must enroll in the following courses;
RTV 3000 Principles of Telecommunication
MMC 3800 Media Management
RTV 3210 Elements of Telecommunication Production
RTV 3220 Telecommunication Production
RTV 4206 Advanced Telecommunication Production
RTV 3500 Programming \& Audience Analysis
II. Students must enroll in one of the following: ADV 3000 Principles of Advertising FIL 3000 Principles of Film PUR 3000 Principles of Public Relations
III.Minor(s)
(1) Select from the department's approved course list one course from each of the following: Aesthetics, Intellectual History, Art History and English.
(2) Minor in one of the following fields: Visual Arts, Performing Arts or Modem Languages

## Communication

## Advertising

I. Besides the core courses, the students in this sequence are required to take:

| ADV 3000 | Principles of Advertising |
| :--- | :--- |
| ADV 3100 | Creative Strategy |
| ADV 4300 | Media Planning |
| RTV 4150 | Radio-TV Advertising |
| RTV 3210 | Elements of Telecommunica- |
|  | tion Production |
| MMC 4995 | Media Presentations |

11. The student must select one of the following:
PUR 3000 Principles of Public Relations
FlL 3000 Principles of Film
RTV 3000 Survey of Telecommunica-
JOU 3I00 News Reporting
1II. Minor(s)
(1) Students in this sequence must choose four (4) courses from the department's approved list in the following areas: Accounting, Consumer Behavior, History, Political Science or English.
(2) Students must also minor in one of the following areas: Consumer Affairs, Marketing, Management, Visual Arts, Performing Arts, Modern Languages or International Relations.

## Public Relations Sequence

1. Besides the core courses students are required to take the following courses:

JOU 3100 News Reporting
JOU 3200 Editing
JOU 3300 Feature Writing
JOU 4307 Industrial Publications
PUR 3000 Principles of Public Relations
PUR 4800 Planning and Implementation of Public Relations Campaigns
MMC 4609 Public Opinion
PUR 4934 Public Relations Seminar or MMC 4945 Communications Internship

## 11. Minor(s)

(1) From the department's approved list of courses, the student must select one course from each of the following subject areas: Statistics, Psychology, Economics, Political Science and Sociology.
(2) In consultation with the sequence director, the student must develop a coherent series of courses of 15 to 18 credits to comprise a minor. Upon agreement, the Minor Course Plan shall be placed in the student's tile. Students are encouraged to consider minors in social sciences, business and modern languages. Attention should also be given to the certificate programs available in the College of Arts and Science.

## Internships and Practicums

The department recognizes two kinds of work experience courses: the internship and the practicum. The internship is normally pursued in the senior year and is an intensive, structured work experience that allows the student to acquire and/or develop professional vocational skills. Generally, the internship is enrolled in once for three credits. If extenuating circumstances exist, other arrangements can be made, but no more than three internship credits can apply toward graduation.

On the other hand, the practicum (MMC 4940) is conceptualized as a career alternative exploration vehicle for students seeking knowledge and experience in a career field, that may be of potential interest. Only three credits of MMC 4940 can apply toward graduation.

Students develop their practicum plans in consultation with their advisor and must obtain permission from the departmental chairperson to enroll in the course. Currently all internships are developed and supervised by the departmental chairperson.

## Course Descriptions

## Definition of Prefixes

ADV - Advertising; FIL - Film; JOU Journalism; MMC - Mass Media Communication; PUR - Public Relations; RTV - RadioTelevision; VIC - Visual Communication.
ADV 3000 Principles of Advertising
(3)

Survey of the historical development, economic and social aspects of the field.

## ADV 3100 Creative Strategy

Requirements necessary for graphic presentations in newspaper and magazines.

## ADV 4150 Radio TV Advertising

The theory and practice of producing advertisements for radio and TV.
ADV 4300 Media Planning
Reviews the strategy of planning media purchases in campaigns.
FIL 3000 Principles of Film
Introduces the film industry, with background structure and functions of the feature film.
FIL 4202 Cinematography For Television (3) A basic course in handling motion picture equipment and filming assignments for television.
FIL 4400 Contemporary Commercial Film (3) Studies the release cycle of current feature films with attention to the American product.

## FIL 4550 Film Animation

Traces the development of animated film as both entertainment and persuasive medium.

FIL 4560 Non-fiction Film
Consideration of the documentary and the industrial-promotion film as persuasive vehicles.
FIL 4600 Economic Aspects of Film
Survey of economic, legal, logistic considerations in producing and releasing feature films.
FIL 4990 Film Production Practicum
Student pursues a structured work experience at a major production house.

## JOU 3100 News Reporting

To teach the skills necessary to recognize and produce a good news or feature story. Experience with actual interviews, discussions with successful writers and journalists, and critique of student work. News judgment and identification of proper sources will be introduced.
JOU 3101 Advanced News Reporting
Practice in reporting news events, personalities and continuing activities. Includes actual experience in writing for news media. Prerequisite: JOU 3100.
JOU 3200 Editing
Practical skills involved in putting out a newspaper; editing copy for clarity, facts and brevity; headline writing; copy reading and proofreading marks. Prerequisite: JOU 3100.
JOU 3300 Feature Writing
The fact story: researched and written in depth. Planning, construction, 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. Prerequisite: JOU 3100 .

## JOU 3600 Photojournalism

Study of principles and practice of photographic assignments related to coverage of news and feature events; and methods of selecting final photographs from contact prints.
JOU 4004 Perspectives in Mass Media
Evolution of democratic mass media in their social, political, economic, technical and professional aspects, with special attention given to significant trends and personalities. Prerequisite: Senior status or permission of the instructor.

## JOU 4108 Depth Reporting

Locating and interpreting basic sources used in reporting and editing news. Students will work with standard reference works and public records, practice interviewing skills, learn to analyze and interpret charts, reports and statistics commonly used by news media and study survey research as used in reporting assignments. Prerequisites: JOU 3100.

## Communication

## JOU 4302 Speciality Writing

Introduction to persuasive writing as a practical means of influencing public opinion. Prerequisites: JOU 3100.

## JOU 4307 Industrial Publications

Writing, editing and production of materials in the area of trade, business, industrial and technical press with special attention given to style for and production techniques of tabloid and magazine format publications. Prerequisite: Permission of the instructor.
JOU 5806 High School Publication Supervision
Designed to assist teachers of journalism at the high school and junior college level, this course emphasizes the technical aspects of producing student newspapers, yearbooks and magazines, as well as the legal and ethical considerations facing today's advisor. In addition, attention is given to matters pertaining to curriculum and methodology for effective journalistic instruction.

## MMC 4200 Mass Communications Law

Study of laws that regulate U.S. mass media, interpretations of these laws through recent court decisions, and the ways communicators work within the statutes of their nation and state. Prerequisite: Senior Status.

## MMC 4302 Comparative Systems of Mass Communication

An examination of various national and international mass communications systems and the elements which determine the type of systems currently operating throughout the world.
MMC 3800 Media Management
Reviews the organization of radio, TV and newspaper enterprises.

MMC 4400 Research In The Mass Media
Emphasizes audience research for media industries. Deals with both syndicated data and original studies. Prerequisite: Senior standing and one Statistics Course.

## MMC 4610 Effects of the Mass Media

Reviews the effects of the media, with special attention to children, minorities and third world countries.

MMC 4800 Case Studies In Media Management
A senior level course dealing with case studies of media organizations. Prerequisite: MMC 3800.

## MMC 4995 Media Presentations

The persuasive use of information and media presentations for government and industry.

MMC 4940 Media Practicum
Structured field-work experience in a media environment.

## MMC 4550 Media History

Development of American media from beginnings in Europe to present day; freedom of the press and its relationships to economic, political and social trends in society.
MMC 5440 Research Methods In The Mass Media
An advanced course in the design, execution and utilization of research studies by media practitioners with special emphasis on original propertiary studies.
MMC 5660 Minorities And The Mass Media (3) A critical review of the role of the mass media as it relates to ethnic, religious and social minorities in a pluralistic society.
MMC 6800 New Technologies of
Communication
The principle emphasis is upon new technologies and their utilization by non-profit organizations. Of particular interest are cable television, teletext, satellites, videodisk, and telecommunication trade-offs.
MMC 5930 Special Topics Seminar
A variable topic seminar dealing with issues of interest to the community. Examples are: Rights of High School Journalists; Non-Profit Organizations Obligations and Cable TV; The Use of Mini-Computers, creativity and communications.

## MMC 6400 Communication Theory and The Mass Media

A review of both academic and social policy theory as it relates to the mass media of communication.
MMC 5850 Seminar In Media And Education (3) A variable topic seminar dealing with issues of concern to educators especially in the areas of low cost production of telecommunication materials for the classroom, along with emphasis on learning theory as it applies to media instruction.
MMC 5855 Institutional Media
A course that reviews media as used in industry, government and related agencies. Stress is placed on the role and contribution of media for communication in large organizations.
RTV 5800 Seminar In Media Management (3) The role of organizational communication theory in managing mass media organizations.

## MMC 6300 International Mass Media

of Communication
This course reviews the role and contribution of the mass media in various socio-political environments other than the United States.
MMC 6600 Political Communications
Reviews the use of the mass media in the American political process, especially in the area of campaigns and elections.

## MMC 5430 Utilization of Syndicated Research Data

An advanced graduate level course that stresses a critical evaluation of broadcast ratings, marketing research and governmental data bases in profit and non-profit media organizations.
RTV 4466 Electronic News Gathering
Use of ENG in broadcast journalism.
RTV 4500 Programming and Audience Analysis II
Use of ratings and audience analysis in radio and TV industries.
RTV 3000 Principles of Telecommunication (3) Review of telecommunication industries, organization and practice.

## RTV 3500 Programming and Audience

 Analysis IIIntroductory course in programming, ratings and audience analysis.
MMC 4602 Role of Mass Media in Society $\quad(3$ 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 4905 Independent Study
(VAR)
Specialized intensive study in an area of special interest to the student. Consent of faculty instructor is required.
MMC 4936 Special Topics
(VAR)
Intensive study for groups of students of a particular topic or limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor or divisional chairperson is required.
MMC 4945 Communications Internship
(3)

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 3000 Principles of Public Relations
(3)

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 Public Relations Compaigns

An advanced course in application of theory to actual implementation of public relations activities. Prerequisite: PUR 3000, or consent of instructor.

## Construction

PUR 4934 Public Relations Seminar
Open to public relations emphasis students only. A course designed to allow the advanced public relations student to pursue a specially selected, specific area of public relations (i.e. political, medical, financial, government, corporate, educational, etc.) through in-depth study under a tutorial style of instruction and guidance. Prerequisite: PUR 3000 and PUR 4800, or consent of instructor.

RTV 3210 Telecommunication Production 1 (3) Fundamentals of broadcast announcing, presentation and interviewing; audio control room procedures, audio recording and editing, use of music and sound effects.

RTV 3220 Telecommunication Production II (3) Basic television production and direction, audio and video controls, studio cameras, slide and film projection, staging, lighting, graphics and composition. Prerequisite: RTV 3210.
RTV 4101 Writing for the Electronic Media (3) Continuation of RTV 3100, emphasis placed on news gathering and full program script preparation. Prerequisite: RTV 3100, Writing for the Electronic Media.
RTV 4206 Advanced Television Directing
A study of the work of the television director. Emphasis on the various aesthetic and psychological factors of television production and their creative application in program production and execution. Prerequisites: Permission of instructor and a grade of B in RTV 3220.

RTV 4302 Broadcast News Reporting
Reporting, writing, and presenting radio and television news programs; analysis of news and public affairs broadcasting; social responsibility for broadcasters. Prerequisite: RTV 3210 and JOU 3100 .

VIC 4300 Communications Technology
This course will provide the study of modern communication equipment usage and impact, with special emphasis upon electronic and visual transmission, reception and projection capabilities and methods. Future development and instrumentation in technical communication systems will also be stressed.

## Construction Department

Iraj Majub, Professor \& Chairperson Jack Clark, Professor
Oktay Ural, Professor
Bhaskar Chaudhari, Professor Hedvika Meszaros, Assistant Professor Julio Otazo, Assistant Professor Jaime Canaves, 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.
Articulation agreements have been made with Broward Community College and Miami Dade Community College (members of the Southeast Florida Educational Consortium) to facilitate the transfer of graduates of appropriate lower division programs to programs at FIU.

## 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 FAMU for transfer of graduates of this FJU program to master level studies at these institutions.
LOCATION: Tamiami Campus Only.
DEGREE: Bachelor of Science in Architectural Technology
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 drawings, technical writing, building codes - plus completion of general education requirements.

## UPPER DIVISION PROGRAM:

Semester Hours
Major Requirements ${ }^{*}$
ARC 3450 Architectural Innov. for Construction

3
ARC 3484 Advanced Architectural Drawing and Design 14
ARC $3586 \quad$ Building Systems 3
ARC 3786 Survey of Arch. History 3
ARC 4039 Architectural Design 4
ARC 4270 Professional Office Practice 4
ARC 4335 Site Development 4
ARC 4485 Advanced Architectural Drawing and Design II 4
ARC $4590 \quad$ Structural Design 4
BCN 3402 Mechanics of Materials 3
BCN 3611 Construction Cost Estimating 3

BCN 3703 Management of Construction Projects 3
BCN 3740 Legal Aspects and Construction Labor Law3

BCN 3761 Specification Writing 4
BCN 3762 Codes \& Specifications 3
BCN 4260 Quality Control in Construction

3
BCN 4561 Environmental Control in Buildings
*or demonstrated competency
Electives: selected with an advisor to meet degree requirements and program objectives (minimum requirement):
(Minimum) 62

## 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,

## Construction

inspections, mechanical and structural design, construction economy, construction materials, and construction methods.
LOCATION: Tamiami Campus Only
DEGREE: Bachelor of Science in Construction Engineering Technology
LOWER DIVISION PREPARATION:
Academic credit or proven competency in the following areas: mathematics through calculus, physics, surveying, construction materials, drawing or drafting, statics.
Remark: A student without this preparation may obtain it while completing the upper division program by taking additional electives.
UPPER DIVISION PROGRAM:
Semester Hours

| Major Requirements* |  | 54 |
| :---: | :---: | :---: |
| ARC 3586 | Building Systems | 3 |
| ARC 4335 | Site Development | 4 |
| ARC 4590 | Structural Design | 4 |
| BCN 3240 | Construction Methods and Equipment | 3 |
| BCN 3611 | Construction Cost Estimating | 3 |
| BCN 3703 | Management of Construction Projects | 3 |
| BCN 3720 | Construction Costs and Scheduling | 3 |
| BCN 3762 | Codes and Specifications | 3 |
| BCN 4561 | Environmental Control in Buildings | 4 |
| BCN 4906 | Special Topics (advanced estimating) | 3 |
| COP 3112 | Introduction to Computers | 3 |
| ETC 3210L | Soil Mechanics Laboratory | 2 |
| ETC 3220C | Soil Mechanics and Foundations | 3 |
| ETC 3322C | Advanced Surveying | 3 |
| ETC 3412 | Determinate <br> Structural Analysis | 3 |
| ETG 3520L | Materials Testing | 1 |
| ETG 3530 | Strength of Materials | 3 |
| ETI 4671 | Engineering Economy | 3 |
| *or demonstrat | d competency |  |
| Electives: Selected with an advisor to meet degree requirements and program objectives (minimum required): |  |  |

## Construction Management

This program is designed to develop individuals for management, supervisory or technical positions in the construction industry and related business, and for those who would engage in their own construction-related business activities. Emphasis is on technical and management essentials, such as cost estimating, project field management and operations,
methods and equipment, codes and specifications, contract administration, job planning, scheduling, inspections, site development. construction materials, construction economics, cost control, labor relations, and salety.
LOCATION: Tamiami Campus Only
DEGREE: Bachelor of Science in Construction Management

## 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.

Semester Hours
Major Requirements *

| ARC $4270 \quad$ Professional Office |  |
| :--- | :--- |
|  | Practice |

ARC 4335 Site Development 4
ARC $4590 \quad$ Structural Design 4
BCN 3240 Construction Methods and Equipment 3
BCN 3402 Mechanics of Materials 3
$\begin{array}{lll}\text { BCN } 3611 & \text { Construction Cost } \\ & \text { Estimating } & 3\end{array}$
BCN 3640 Economic Planning
BCN 3703 Management of
BCN 3720 Construction Costs
$\begin{array}{lll} & \text { and Scheduling } & 3 \\ \text { BCN } 3730 & \text { Construction Safety } & 3\end{array}$
BCN 3740 Legal Aspects and
Construction Labor
Law
3
BCN 3762 Codes and $\quad 3$
$\begin{array}{lll}\text { BCN } 4260 & \text { Quality Control in } \\ & \text { Construction } & \end{array}$
BCN 4561 Environmental Control
in Buildings 4
BCN 4906 Special Topics (advanced estimating) 3
BUL 4111 Business Law I 3
ETI 4671 Engineering Economy 3
*or demonstrated competency
Electives: selected with an advisor to meet degree requirements and program objectives (minimum required):

$$
\text { (Minimum) } 60
$$

## Interior Design

This is an interdisciplinary program integrating areas pertinent to the field ol interior environments. It includes considerations in business procedures: commercial residential and institutional design associated with this prolession, and development in the ability to integrate design including basic design elements, space
relationships, materials, and interior requirements.
LOCATION: Tamiami Campus Only.
DEGREE: Bachelor of Science in Interior Design
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 $6 I$ credits selected from the following list:

Semester Hours
Major Requirements ${ }^{*}$

| ARC 3786 | Survey of <br>  <br>  <br> Architectural |  |
| :--- | :--- | :--- |
| History | 3 |  |
| ARC 4039 4270 | Architectural Design <br> Professional Office | 4 |
|  | Practice | 4 |
| BCN 361I | Construction Cost <br> Estimating | 3 |

BCN $3740 \quad$ Legal Aspects \&
Constr. Labor Law 3
BCN 3761 Specifications Writing 4
BCN 4561 Environmental Control
IND 3020 Introduction to
Architectural
Interiors \& Housing 3
IND $3210 \quad$ Advanced Interior
Design I
4
IND 4220 Advanced Interior
Design Il 4

IND 4221 Institutional Interiors 4
IND 4224 Exhibit and Display
Design
3
IND 4316 Media \& Methods of
IND 4905 Presentation $\begin{aligned} & \text { Independent Study }\end{aligned}$
$\begin{array}{ll}\text { IND } 4905 & \begin{array}{l}\text { Independent Study } \\ \text { (Thesis) }\end{array}\end{array}$
MAR 3023 Marketing Management
or Equiv. 3
MAR 4503 Consumer Behavior 3
*demonstrated competency
Electives: selected with an advisor to meet degree requirements and program objectives (minimum required):

## Construction

## 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 3127 Graphic Communication

To develop the understanding and graphic skills necessary to the conception and communication of design and engineering technology. The course is flexible in order to accommodate different student backgrounds. Basic graphic methods and media including orthographic and isometric projection; one and two-point perspective; composition, lettering and presentation techniques.
ARC 3210 Architectural Concepts of Construction
Introduction to principles of design and perception. Study of user's need relationship with environmental and human factors. Examination of architectural design ideas and their development. Prerequisite: ARC 3466, or, equivalent.

## ARC 3450 Architectural Innovations for Construction

Specialized study in an area of interest to the student, where architectural design is used with new methods of construction due to advancing technological developments. Drawings and field surveys. Prerequisite: Consent of instructor.
ARC 3466 Materials and Methods of
Construction
A study of the types of construction and materials used in buildings. How materials are 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

Methodology of planning and design of architectural projects, with special emphasis on working drawings and detail drawings. Prerequisite: ARC 3127 or equivalent.
ARC 3586 Building Systems
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 (3) Comprehensive study of architectural forms, styles and construction techniques throughout history. Prerequisite: ARC 3466, or equivalent.
ARC 4039 Architectural Design
Integrated study of basic design concepts and principles of design. Development of architec-
tural design products, presentation drawings, plans and quantity surveys. Prerequisite: ARC 3127 , or equivalent.
ARC 4270 Professional Office Practice (4) 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 4335 Site Development
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 4485 Advanced Architectural Drawing and Design II

New techniques in the preparation of working drawings, detail drawings; inclusion of change orders. Preparation of finish schedules, with correlation to specifications writing. Prerequisite: ARC 3484.

ARC 4590 Structural Design
Elements of structural design in steel, reinforced concrete, and timber, with design specifications per AISC, ACl and NDS. Introduction is prestressed concrete design. Loadings and structural elements commonly encountered in construction will be used for analysis and design. Prerequisite: BCN 3402, or equivalent.

## ARC 5336 Basic Utilities and Housing

The study of the importance of basic utilities (such as roads, sewer and water supply systems) in housing planning and construction. A relative cost analysis. Health problems and sociological effects of lack of basic utilities. Innovative concepts to incorporate basic utilities to all housing projects in developing countries. Prerequisite: Consent of instructor.

## ARC 5916 Innovations in Building Technology

Experimental approach to new materials and methods applicable to the field of construction. Prerequisite: consent of instructor.
BCN 3210 Construction Materials
Lecture/Lab - A study of the origins, production and uses of construction materials, such as concrete, steel, aluminum, wood, plastics, brick and stone. Includes testing lab, which consists of testing and evaluating properties of construction materials.

## BCN 3240 Construction Methods and

 EquipmentMethods, procedures, and equipment used in residential, commercial and heavy construction. Equipping the construction plant. Production
value analysis. Work effectiveness studies. Prerequisite: Algebra.
BCN 3254 Building Construction Drawing I (3) 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 3257 Exterior Design
Exploration and analysis of the relationship of exterior and interior environment. Emphasis on three dimensional design projects, using basic model making and presentations.
BCN 3280 Construction Surveying
Principles and practices of surveying as it applies to building construction. Prerequisite: Trigonometry or equivalent.

BCN 3402 Mechanics of Materials
Applications of the principles of mechanics to engineering problems of equilibrium, strength, and stiffness. Topics include equilibrium of forces, stress, strain, torsion, beams, and columns. Prerequisite: Trigonometry or Technical Math.
BCN 3611 Construction Cost Estimating
Principles and practices of estimating providing application and drill in surveying quantities of labor and materials for general construction projects: excavation, concrete and formwork, carpentry, masonry, structural steel, lath and plaster, interior finishes. Prerequisite: ARC 3466 or equivalent. Consent of instructor.
BCN 3640 Economic Planning for - Construction

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
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. Prerequisite: BCN 3720 and BCN 3762 , or equivalent.
BCN 3720 Construction Costs and
Scheduling

The application of the Critical Path Method and Program Evaluation Review Technique to construction planning, scheduled vs actual job expenditures. Cost forecasting. Development of

## Construction

unit prices from field data. Laboratory is included, which consists of computer applications. Prerequisite: BCN 3611, or equivalent.
BCN 3740 Legal Aspects \& Construction Labor Law
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 Specifications Writing
Study of methodology for acquisition of information and transmission of technical and legal requirements for construction projects. Preparation of outline specifications, building description and purchasing specifications. Problems of format, reviewing and updating. Prerequisite: BCN 3740 or consent of instructor.

BCN 3762 Codes and Specifications
A study of codes required by local, county, and state levels. The writing and reading of specifications: bidding procedures; the relationships between contractors, engineers-architects, owners, subcontractors, and material suppliers. Prerequisite: ARC 3466, or equivalent.

## BCN 4221 Road Construction

A study of highway planning pre-construction investigations such as surveys, soil test data and drainings, types of construction equipment and materials. Familiarization with standard methods required for various governmental agencies. Prerequisite: BCN 3210.

BCN 4260 Quality Control in Construction (3) Quality control as governed by the job inspector, contractor superintendent, architect-engineer, building official, and governmental agencies and requirements. Prerequisite: BCN 3762, or equivalent.

## BCN 4452 Structural Systems

A general study of the methods of structural systems, such as beams, columns, rigid frames, arches, trusses, floors, enclosure systems, and various foundation configurations. The limitations of using various structural materials for the systems will be discussed. Prerequisite: BCN 3402 , or equivalent.

## BCN 4561 Environmental Control in Buildings

A study of concepts and systems for providing optimum thermal, lighting, plumbing, and acoustical conditions, in both commercial and residential buildings. Designed for majors in architecture, interior design, and construction management. Prerequisite: ARC 3466 , or equivalent.

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 5706.

## BCN 5706 Interdisciplinary Aspects of Housing

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 5707 Housing and Environment
The impact of housing and construction on a community and environment. The necessity of total planning to protect the environment. Public participation in housing planning. Economics vs. ecology. Prerequisite: none.

## BCN 5905 Directed Independent Studies (Master's Program)

Individual studies under supervision of faculty, tutor, or advisor. Consent of tutor \& faculty chairperson required.

BCN 5906 Special Topics (Master's Program) Intensive study for small group of students in a particular topic, or a limited number of topics not otherwise offered in the curriculum. Consent of supervisor and department chairperson.

## BCN 6473 Systems Approach for Housing Planning

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.

## ETD 3020 Graphic Communication

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

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 \& HousingApplication of the elements, principles and introduction to the basic facets of architectural interiors and its relationship to interior environment in general.

## IND 3210 Advanced Interior Design I

Consideration and application of design criteria including floor, wall and ceiling materials and treatments, furniture selection and arrangement, illumination, ventilation and selected architectural details for residential spaces. Prerequisite: Junior standing.

## IND 3500 Interior Design

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 4220 Advanced Interior Design II
Analysis, synthesis, articulation and design execution of commercial spaces, integrating human factors, environmental-technological systems, activity structure and symbiotic relationships as space design determinates. Consideration of significant aspects of culture design components, and merchandising procedures. Prerequisite: IND 3210.
IND 4316 Media \& Methods of Presentations (3) 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 (4) 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
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.
IND 4905 Independent Study (Thesis)
Simulated conditions of an interior design commission assuming all responsibilities of a professional interior designer, providing all required services including: cost estimate, contract, conceptual design drawings, selection of

## Dietetics and Nutrition

furniture and accessories, lighting systems, and treatment of walls, floors and ceilings. Prerequisite: Completion of Interior Design curriculum.

## LAA 3370 Landscape Design I

Application of Basic Design principles to the design of landscape and garden. A general survey of design elements, restraints, plant materials and other garden materials will aid the student to develop projects in a laboratory environment. Prerequisite: ARC 3127
LAA 3712 History of Landscape
A survey of landscape history throughout the ages. From the gardens of Mesopotamia, Roman and Islamic periods, the Monastery and Castle gardens of middle ages and the Renaissance, to the influence of Oriental gardens and the modern era. Prerequisite: Consent of instructor.

## LAA 4531 Construction and Design of

 Natural Recreation AreasThe 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.

## Dietetics and Nutrition

Nancy Wellman, Chairperson and Associate Professor
Penelope Easton, Professor
Susan Himburg, Assistant Professor and Director, CUPID
Katharine Curry, Professor and Associate Dean
Rasheed Khan, Assistant Professor
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 to 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 University student must make formal application to the Depart-
ment for the clinical portion of the program by March 15 before Fall admission. This is a special application form which can be obtained from the Department. Students must enroll in DIE 3005-Orientation to Dietetics the summer prior to Fall admission. Students will be provisionally admitted in August based on satisfactorily completing the fall semester. Clinical courses are sequential and require two years to complete. Clinical experiences are available in several hospitals and other health agencies. Students must satisfactorily complete a written comprehensive exam to graduate from the program.

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. This program will meet Plan IV requirements of The American Dietetic Association.

## General Dietetics

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 with labs; (3) organic chemistry, two term course with lab or one term complete course with lab; (4) one course in business management; (5) one course in basic foods and one course in quantity foods; (6) one course in basic nutrition; and (7) Microbiology.
UPPER DIVISION PROGRAM:
Semester Hours

## Major Required Courses:

72
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 dietetic courses.

| Junior Year Summer Term |  |
| :---: | :---: |
| DIE 3005 | Orientation to Clinical |
|  | Dietetics* |
| Fall Term |  |
| HUN 4410 | Nutrition: Infancy - |
|  | Adolescence 3 |
| DIE 3317 | Dietetics in Community |
|  | Health |



DIE 3355
Dietetics in Community Health Practicum* 4
FSS 3215
Spring Term
D]E 3125
DJE 3175 Management of Dietary
D]E 3245
DIE 3275 Applied Diet Therapy 2
FOS 4041 Food Science 3
Summer Term
DJE 4435
DJE 4436 Dietetic Instruction
and Counseling Lab 1
Senior Year Fall Term
DIE 4246 Diet Therapy 11
DIE 4277 Diet Therapy II
DIE 4365 Dietetic Management of Nutrition Programs 3
DIE 4377 Dietetic Management of Nutrition Programs Practicum
HUN 424I Nutrition II 3
Spring Term
DIE 4536 Advanced Clinical Practicum*
DIE 4506 Seminar in Dietetics and Nutrition
Other Requirements: One course in biochemistry; one course in human physiology; plus any lower division requirements not completed.
Recommended Electives: Selected courses in the following areas; education, statistics, social work, health science, adult education, business, anthropology, sociology.

## Graduate Program

The Department of dietetics and nutrition offers a graduate program leading to the Master of Science degree in Dietetics, with a subspecialty in either Therapeutic and Community Dietetics or Dietetic Management. Dietitians enrolled in this Program may prepare themselves for positions of responsibility in health care institutions, community health agencies, or

## Dietetics and Nutrition

private practice. The Program will allow for concentration in research or field application.

The Program is designed to meet the needs of the professional practitioner of dietetics. It is keyed to the study of the rapidly growing urban society of South Florida with its multicultural groups.

Admission to the Program requires completion of The American Dietetic Association Plan IV Program. Evidence of this must be submitted to the Department. Minimum requirements, under current Board of Regents policy, will be met. This includes a combined score of 1000 on the Verbal and Quantitative Aptitude Tests of the Graduate Record Examination or at least a " $B$ " ( 3.0 on a 4 point scale) average in all upper leve! division work. Application procedure for admission to the program will be found in the discussion of University procedure for admission to graduate study in the current FIU catalog. A personal interview or suitable letters of reference will be required for admission.

Students who are candidates for the Master of Science degree in Dietetics must complete a minimum of 37 semester hours of graduate study and 30 hours of this must be completed at Florida International University. All of the work must be of recent enough date to be relevant to the field of dietetics today.

The student's program will be planned to be consistent with his/her career goals and in consultation with his/her assigned faculty advisor. The proposed program of study will be filed in the office of the Chairman of the Department of Dietetics and Nutrition by the end of the student's first semester of full-time study.

Retention in the Master of Science in Dietetics Program required maintenance of a " $B$ " grade point average. Completion of the program will be documented by oral and written examinations.
Course Requirements For M.S. in Dietetics Semester Hours
Research (8-14)
*,**DIE 6568
Research Methods in Dietetics
***DIE 6578
Field Research Methods in Dietetics
OR
HUN 6558
Laboratory Research Methods in Dietetics 2 Statistics at the Graduate Level $2-3$
DIE 6971 Thesis in Dietetics 6
Scientific Knowledge (5-8)
$\begin{array}{cll}{ }^{*}, \text { **DIE 6937 } & \begin{array}{l}\text { Graduate Seminar in }\end{array} \\ { }^{*} \text { HUN 5245 } & \begin{array}{l}\text { Dietetics }\end{array} & \begin{array}{l}\text { Nutrition and } \\ \text { Biochemistry }\end{array} \\ \text { OR } & & \\ \text { HUN 6247 } & \text { Nutritional } & \\ & \text { Pathophysiology } & 3\end{array}$
**FOS 6044 Advanced Food Science 3

Application to Discipline (6-12) *DIE 5247 Diet in Disease Prevention and Treatment
OR
DIE 6593
Special Topics in Dietetics 3
**DIE 6128 Advanced Management *HUN $6521 \quad \begin{array}{ll}\text { of Dietary Systems } \\ \text { Advanced Community }\end{array}$ Nutrition
OR
HUN 6408 Nutrition During the Life Cycle
HUN 5123 Ethnic Foods and Nutrition
HUN 5611 Nutrition Education
HUN 5621 Food, Nutrition and Communication 3
Practice (3-6)
**DIE 6368
Advanced Techniques in Dietetic Practice 3
DIE 6908 Supervised Field Study
*Required for Clinical/Community Track **Required for Administrative Track

## Course Descriptions

## Definition of Prefixes

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

## Undergraduate

DIE 3005 Orientation to Dietetics
Survey of 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. Prerequisites: Organic Chemistry or permission of Chairman.

DIE 3125 Management of Dietary Systems
Survey of various types of institutional food service systems. Will cover management concepts in planning, implementing and evaluating food service systems. Prerequisite: Basic Management, Quantity Food Preparation.
DIE 3175 Management of Dietary Systems Practicum
Provides for developing skills as listed for DIE 3125. Clinical assignments will be made in several food service institutions in this area. Clinical component: open only to a student in the Coordinated Undergraduate Program. Prerequisite: DIE 3355.
DIE 3245 Diet Therapy I
Techniques of adjusting nutrients and food intake to accommodate medical treatments and previous nutriture. Menu writing and analysis, translation of dietary prescriptions, techniques of dietary instruction, dietary histories. Prereq-
uisite: HUN 3122, DIE 3317, HUN 4410, Physiology.

## DIE 3275 Applied Diet Therapy

Observation and participation in dietary treatment activities. In clinical institutions and simulated settings, application of menu writing, techniques of diet history and instruction. Corequisite: DIE 3245.
DIE 3317 Dietetics in Community Health
Study of community agencies available for nutrition guidance for differeing age groups. Emphasis on nutritional and educational needs of clients. Prerequisite: HUN 3122, DIE 3005. Prerequisite or Corequisite: HUN 4410.

## DIE 3355 Dietetics in Community

Health Practicum
Observation and participation in activities of community agencies. Nutrition education and counseling experiences. Clinical component: open only to a student in the Coordinated Undergraduate Program. Corequisite: DIE 3317.

## DIE 4195 Special Problems in Dietetic

Administration
(1-3)
In-depth study of a problem in dietetic administration chosen to coincide with a student's interest and career goals. Student will develop objectives stated in behavioral terms and demonstrate skills in information gathering, analysis and technical writing.

## DIE 4246 Diet Therapy 11

In-depth study of the complex dietetic problems accompanying metabolic disorders with considerations of medical and individual needs. Prerequisites: Biochemistry, Physiology, DIE 3245 or equivalent. Majors only

## DIE 4277 Diet Therapy II Practicum

Participation in activities in clinical affiliations focusing on nutritional assessment, planning, treatment and follow-up of patients. Clinical component: open only to a student in the Coordinated Undergraduate Program. Corequisites: DIE 4246.
DIE 4296 Special Problems in GeneraI Dietetics
(1-3)
In-depth study of a problem in general dietetics chosen to coincide with student's interest and career goals. Student will develop objectives stated in behavioral terms and demonstrate skills in information gathering, analysis and technical writing.
DIE 4365 Dietetic Management of Nutrition Programs
Advanced concepts of managerial functions of a dietitian working as an institutional consultant, a member of a community nutrition program, a private therapeutic consultant (or) (as well as)

## Dietetics and Nutrition

full time institutional food service administrator will be covered. Advanced standing required. Prerequisite: DIE 3125 or permission of the instructor, basic competency in management principles.

## DIE 4377 Dietetic Management of Nutrition Program Practicum

Observation and participation in community agencies, institutions and simulated setting for the development of entry level competencies in the management of nutrition and food service programs. Corequisite: DIE 4365.

DIE 4435 Dietetic Instruction and Counseling
Motivational methods and instructional techniques will be practiced in simulation activities for development of entry level competencies. Advanced standing in dietetics required. Pre or Corequisite: DFE 3245.
DIE 4436 Dietetic Instruction and Counseling Lab
Will provide small group video tape recording practice in dietetic instruction and counseling. To be taken with DIE 4435. Prerequisite: Advanced standing in dietetics.
DIE 4506 Seminar in Dietetics and Nutrition (3) Study of current dietetic and nutrition problems, and research findings. Open to students with Senior standing only.

## DIE 4536 Advanced Climical Practicum in Dietetics

(15)

In-depth study combining theoretical concepts and clinical experience. Learning experience will be planned cooperatively by the student, campus instructor and clinical instructor to meet individual needs and goals of the student. Prerequisite: DIE 4246 and DIE 4277 and permission of Director of the Coordinated Undergraduate Program. Clinical component: open only to a student in the Coordinated Undergraduate Program.

## FOS 3004 Food and the Consumer

Study of concerns of purchasing, storage and preparation of food. Consideration of current life style which influences food choices. Designed to give the student skills in purchasing and preparing foods to meet personal, social and physical needs. Demonstration Laboratory included.

## FOS 3021 Fundamentals of Food

Study of selection, processing and preparation of food with attention to quality and nutrient retention. Includes equipment choices for food preparation in small quantities. Laboratory included. (Recommended for non-majors).

FOS 4041 Food Science
Physical and chemical changes in food occurring as a result of various methods of processing, preparation, and storage of foods. Prerequisite:

Organic Chemistry, HUN 3122, FOS 3021 and FSS 3215, or equivalents.
FSS 3215 Meal Management and Service
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 corequisite: HUN 3122 and FOS 3021 or equivalent or permission of instructor, preparation in basic foods.

FSS 3316 Food Science For Institutiuons
Course will emphasize proper food handling in institutional settings with use of sound management principles closely coordinated with food sciences advances and govemment regulations. Laboratory and field trips will be used to strengthen theoretical concepts. No prerequisites.
HUN 3017 Nutrition for Health Professionals
Study of basic nutrients and nutritional interrefationships with emphasis on normal nutritional needs for achieving and maintaining health. No prerequisites.

## HUN 3122 Nutrition and Culture

Nutrients and their interrelationships in reference to food habits and the needs of various population groups. Introduction to the impact of culture in nutriture and the study of personal food pattern development. Recommended for non-majors.

## HUN 3240 Metabolic Aspects of Nutritional Status

Course will emphasize the nutritional components of food and metabolic aspects of nutrients. The interaction of nutrients and their complete degradation and utilization to meet the metabolic demands of the body. Prerequisite: 9 semester hours chemistry and HUN 3122, or equivalent.

## HUN 4241 Nutrition II

(3)

Roles of nutrients in metabolic processes. Effects of excesses and deficiencies. Prerequisite: Organic Chemistry, Physiology and HUN 3122 or equivalent.

## HUN 4410 Nutrition: Infancy Through

 AdolescenceStudy of nutrient needs of women of childbearing years and infants and children. Group feeding programs, government agencies, for children and adolescents. Nutrition education materials and strategies in various economic and cultural groups. Prerequisite: HUN 3122.

## Graduate

DIE 5247 Diet in Disease Prevention and Treatment
Critical study - historical, current, and experimental. Standards of dietetic practice developed
and analyzed. Prerequisites: Completion of American Dietetic Association PLAN IV and permission of Departmental chairman.
DIE 5926 Workshop in Dietetics and Nutrition
Short term intensive development of selective subject matter in dietetics, nutrition or nutrition education techniques and methods. Prerequisites vary according to subject.
DIE 6128 Advanced Management of Dietary Systems
Application of management and organizational theory to dietetic systems in health and community institutions. Completion of ADA PLAN IV (with two management courses) and permission of instructor.
DIE 6368 Advanced Techniques in Dietetic Practice
Course will cover techniques and approaches in changing nutritional behavior, establishing private practice, providing dietetic services in various size institutions, hospitals, nursing homes and in the community. Prerequisites: DIE 4435, DIE 4436 or equivalent.
DIE 6568 Research Methods in Dietetics (3) Consideration of scientific methods and theoretical orientation as applied to research in dietetics. Special consideration given to various techniques of investigation, data collection, data organization and interpretation. Prerequisite: Admission to Master of Science in Dietetics Program and permission of instructor.
DIE 6578 Field Research Methods in Dietetics
Application of field research methods in interpreting and designing research studies. Introduction to interdisciplinary research approaches. Prerequisites: DIE 6568 and consent of department chairman.

## DIE 6907 lndividual Study in Dietetics

(1-3)
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 (3) 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. Prerequisite: DIE 6578, 25 hours of graduate study and permission of instructor.
DIE 6937 Graduate Seminar in Dietetics (1) An exploration of current issues in the field of dietetics and nutrition. Topics are chosen by the

# Engineering Technology, Electrical \& Mechanical 


#### Abstract

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 6938 Special Topics in Dietetics
In-depth study of historical, epedimiological prevention and treatment aspects of topics related to dietetics. Prerequisites: PLAN IV ADA, competence in topic covered, admission to graduate program.

## DIE 6971 Thesis in Dietetics

(3-6)
Prerequisite: DIE 6578 or HUN 6811, 25 hours of graduate study and permission of Director of Thesis.

## FOS 6044 Advanced Food Science

In-depth study of the various components of foods and the effect of different methods of processing on their physical and chemical characteristics. Prerequisites: ADA PLAN IV and permission of the instructor.

> HUN 5123 Ethnic Influences of Nutriture and Food Habits

Systematic study of the food habits of various cultural groups. Emphasis is on methodology, analysis of data, relationship of food habits to nutritional standards and corrective measures. Includes laboratory. Prerequisite: Competency in food preparation and nutrition. Recommended for non-majors.

HUN 5245 Nutrition and Biochemistry
Advanced study of the relationship of nutrition and biochemistry with emphasis on digestion, absorption, metabolism of nutrients and determination of norms. Prerequisites: ADA PLAN IV and permission of instructor.
HUN 5611 Nutrition Education in the Community
In-depth study of nutrition education information and methods in the community including the nutrition education component of school food service and other congregate meal programs. Prerequisite: Recent courses in nutrition education or permission of instructor.
HUN 5621 Food, Nutrition and Communication
Covers concepts and techniques for effective professional communication with individuals, groups and other professionals. Emphasis is on differences in approach to communication in small groups versus mass media. Prerequisite: Advanced standing, competency in food and nutrition knowledge.
HUN 5890 Recent Research in Dietetics (3) Updating of dietetic information. Study of current food, management and/or nutrition research. Prerequisite: Competency in foods and nutrition. Recommended for non-majors.
cal conditions allied to digestion, absorption, metabolism, and other states in which nutrition plays a part in etiology or treatment. Prerequisites: ADA PLAN IV and permission of instructor.
HUN 6408 Nutrition During the Life Cycle (3) 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 (3) In-depth study of assessment of nutriture in population groups and needs of public for nutrition information. Emphasis on nutrition consultation for health professionals and dietary care. Prerequisite: DIE 3317 or equivalent.
HUN 6811 Laboratory Research Methods in Dietetics
Laboratory application of research methods in dietetics. Prerequisite: DIE 6568 and consent of department chairman.

## Electrical and Mechanical Engineering Technology Department

James Story, Associate Professor and Chairperson
Manuel Cereijo, Associate Professor \& Coordinator
Wunnava Subbarao, Associate Professor
Juan Villar, Assistant Professor
Rene Leonard, Associate Professor
Sergio Alcorta, Assaciate Professor
Ian Radin, Associate 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 Departments. 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.

Two majors are offered in the Department: Electrical Engineering Technology and Mechanical Engineering Technology.

The Electrical Engineering Technology major is professionally accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

## 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.
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 preEngineering) may be admitted with deficiencies which must be made up while enrolled at Florida International.

# Engineering Technology, Electrical \& Mechanical 

UPPER DIVISION PROGRAM:

| Semester Hours |  |  |
| :---: | :---: | :---: |
| Core Courses (AA in Pre-Engineering) |  |  |
| ETE 3034C | Circuit Analysis with |  |
|  | Calculus | 3 |
| ETE 3035 | Elec Cir. Lab \& Comp. | 2 |
|  | Electronics with |  |
|  | Calculus | 3 |
| ETE 3030L | Electronics Lab | 1 |
| ETE 3142 | Solid State Devices | 3 |
| Core Courses (As in Electronic |  |  |
| Technology) |  |  |
| MAC 3411 | Calculus I | 3 |
| MAC 3412 | Calculus II | 5 |
| PHY 3040C | Physics | 3 |
| PHY 3041C | Physics | 3 |

Common Core Courses ..... 70
ETE 3620C Logic Design ..... 3
COP 3112 Introduction to Computers I ..... 3
ETE 3121C Advanced Circuit Analysis ..... 3
ETE 3565C Introduction to Electrical Power ..... 3
ETE 3323C Practical Linear
Systems Analysis ..... 3
ETE 3421C Modern CommunicationTechnology3
ETE 4123C Electronic CircuitAnalysis3
ETE 4161C Integrated Circuits
Analysis \& Application 3
ET1 4671 Engineering Economy 3ETE 3526C Electric Machinery 3ETE 3661C Advanced ComputerSystems3
ETC 4170C Passive and Active Filters ..... 3
ETE 4325C Advanced ControlSystems3
ETE 3353 Report \& TechnicalWriting3Specialization
Minimum Upper Division Required Hours63
Specialization: of the following areas:
Digital Systems
ETE 4621C Advanced Logic Design 3ETE 4669Microcomputers I 3ETE 4683CMicrocomputers II3
Electrical PowerETE 4563C Electrical Systemsin Ind.3
ETE 4565C Electrical PowerSystems I3
ETE 4567C Electrical PowerSystems II3

Electronic Communications
ETE 3422
Transmission Systems for Communication 3
ETE 4426C
Advanced Communication Systems 3
ETE 4171C Advanced Filter Design 3
Process Control
ETE 4324C
Process Control Instrumentation 3
ETE 4665C Digital Process Control Systems 3
ETE 4666C Control System Design 3
Mechanical
EVS 3215C Applied Hydraulics 3
ETM 3205 Thermodynamics I 3
BCN 3402C Mechanics of Materials 3
Including both lower and upper division coursework, each student must complete a minimum of 24 semester hours in communications, social science and humanities, and a minimum of 24 semester hours in basic science and mathematics.

## Mechanical Engineering Technology

This program offers specialization in the application of energy, materials, mechanics, and design to industrial problems.
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, FORTRAN.
Remarks: A student without this preparation may obtain it while completing the upper division program by selection of additional electives.
UPPER DIVISION PROGRAMS:

## Semester Hours

Major Requirements:
ETG 3520L Materials Testing Lab 1
ETG 3530 Strength of Materials 3
BCN 3560 Mechanical Systems in Construction 3
ETI 4671 Engineering Economy 3
ETG 3510 Dynamics 3
ETM 3801 Basic Materials 3
ETM 3510 Mechanical Design I 3
ETM 3205 Thermodynamics 1 3
ETM 4225 Energy Systems 3
ETM 4720 Air Conditioning \& Refrigeration Prin. 3
ETM 4221L Mechanical Laboratory 2
ETM 4652L Instruments and
Measurements
Laboratory

| ETM 4643L | Air Conditioning and Refrigeration Laboratory | 2 |
| :---: | :---: | :---: |
| ETE 3030 | Survey of Electronics | 3 |
| ETM 3111 | Solar Energy Design | 3 |
| ETE 3565C | Introduction to |  |
|  | Electrical Power | 3 |
| EVS 3215C | Applied Hydraulics | 3 |
| ENC 3353 | Report \& Technical |  |
|  | Writing | 3 |
| ETM 4238 | Heat Transfer | 3 |
| ETM 4206 | Thermodynamics II | 3 |
| *Electives: (Must be selected from one subject specialization) |  | 9 |
| Minimum Upper Ditision Required |  |  |
|  |  | 64 |
| *Specializations |  |  |
| A. Heating, Ventilating \& Air Conditionin |  |  |
| ETM 4750 | Air Conditioning |  |
|  | Design I | 3 |
| ETM 4752 | Air Conditioning |  |
|  | Design II | 3 |
| ETE 4563C | Electrical Systems in Industry | 3 |
| B. Power \& Energy |  |  |
| ETM 3312 | Fluid Mechanics | 3 |
| ETM 5515 | Solar Energy |  |
|  | Technology and |  |
|  | Applications | 3 |
| ETM 4560 | Mechanical Power |  |
|  | Theory | 3 |
| ETE 3526C | Electrical Machinery | 3 |
| ETE 4565C | Electrical Power |  |
|  | Systems II | 3 |
| C. Manufacturing \& Design |  |  |
| ETM 4511 | Mechanical Design II | 3 |
| ETI 3645 | Production in Planning \& Control | 3 |
| ETI 3110 | Quality Control | 3 |
| ETI 4660 | Material Handling | 3 |
| ETI 3661 | Plant Layout | 3 |

Including both lower and upper division course work, each student must complete a minimum of 24 semester hours in communications, social science, and humanities, and a minimum of 24 semester hours in basic science and mathematics (general education requirements.)

# Engineering Technology, Electrical \& Mechanical 

## 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:


## Course Descriptions

## COMPUTER ENGINEERING

TECHNOLOGY
Definition of Prefixes
ETE - Engineering Technology: Electrical; COP - Computer Programming.

ETE 3620C Logic Design
Karnaugh maps and Quine McCluskey reduction techniques, study of analytical and empirical tools necessary to design with digital IC's, combinational logic, and sequential circuits are considered (includes lab). Prerequisite: Boolean Algebra.

ETE 3650C Computer Hardware Fundamentals
Analysis of computer elements and systems composed of flip-flops registers, counters, adders, etc., study of 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

(3)

Study of hardware computer systems and components in a laboratory environment, arithmetic and memory system, complete minicomputer, digital communications system, digital modern input-output interface (includes lab). Prerequisite: ETE 3620C.

ETE 4621C Advanced Logic Design (3)
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 C .

ETE 4669 Micro Computers I
Lecture/Lab - lncluding hardware, organization, interfacing, system components, application, design and selection. System development and usage through software. Prerequisites: COP 3110 and ETE 3661C

ETE 4683C Microcomputers II
This course will emphasize design \& applications of digital systems using specific microcomputers from an equipment designer's point of view. Hardware, şoftware, \& system design concepts will be considered including hands-on hardware and software projects. Prerequisites: ETE 4669 or equivalent.

## COOPERATIVE EDUCATION

Definition of Prefixes
ETG - Engineering Technology: General.
ETG 3949 Cooperative Education Technology
Supervised full-time work semester for technology cooperative education students. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required.

## ETG 4949 Cooperative Education Technology

Supervised full-time work semester 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 (3) A survey of electrical and lighting requirements for residential, industrial, and commercial buildings. Emphasis on estimating circuits, power requirements, layout constraints, etc. No prerequisites.

ETE 3030 Survey of Electronics
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
(1)

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 Circuit Analysis with Calculus (3) 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 or equivalent.

ETE 3101 Electronics with Calculus
Introduction to electronic circuit elements and analysis using calculus. Diode and transistor principles and circuits. Survey of pulse and digital circuits and various semiconductor devices. Prerequisite: ETE 3034 C or equivalent. Corequisite: ETE 3030L.

## ETE 3121C Advanced Circuit Analysis

This course provides the student with a basic knowledge of Laplace transforms for practical applications in networks and systems. Complex frequency poles and zeros concepts and applications, transformed networks. Fourier transform and signal spectra are also covered. Prerequisite: ETE 3034C or equivalent Corequisites: MAC 3412 and ETE 3101.

## ETE 3142 Solid State Devices

Study of virtually all modern semiconductor devices with applications, MOFSET, photodetectors, thyristors, unijunction transistors, special diodes, etc. (includes lab). Prerequisite: ETE 3101 or equivalent.

ETE 3323C Practical Linear Systems
Basic concepts and application of linear systems, feedback systems, stability analysis, Bode plots and root-locus techniques. Prerequisite: ETE 3121C.

## ETE 3421C Communication Systems

Definitions, basic concepts and application of analog and digital modulation techniques. Modulators for generating various signals and demodulators for information recovery are studied. Quantization. Decoding. Effect of noise in communication systems. Prerequisite: ETE 3034 C or equivalent.

## ETE 3422 Transmission Systems for Communication

Use of Smith Chart. Different transmission lines and microwave channels. Laboratory experiments using spectrum analyzers to study AM, FM and pulse modulation system. Simulation of transmission lines. Prerequisite: ETE 3421C.

# Engineering Technology, Electrical \& Mechanical 

## ETE 3426C Electric Machinery

Analysis of rotating efectric machinery with emphasis on industrial applications (includes fab). Prerequisite: ETE 3565 C , or equivalent.
ETE 3565C Introduction to Electrical Power (3) Structure of electrical power sytems. 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 loadforecasting. Calculation of cost of electrical energy. Prerequisite: ETE 3034C or equivalent.

## ETE 4123C Electronic Circuit Analysis

Analysis and design of electronic circuits using biploar 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

Application of state-of-the-art integrated circuits. Comparison of different IC's from the SSI, MSI, and LSE areas. Design and characteristics of linear and digital integrated circuits. Prerequisites: ETE 4123C \& ETE 3620.
ETE 4170C Passive and Active Filters
Practical application of passive and active filters to communication and process control systems, laboratory applications. Prerequisite: ETE 3121C.
ETE 4171C Advanced Filter Design
This course puts together theories, techniques and procedures which can be used to design \& implement analog and digital filters. Prerequisite: ETE 4170.

ETE 4324C Process Control Instrumentation
Servomechanisms analysis and design. Sensors, transducers, recorders, error detecting devices and other electronic and electromechanical components of control systems. Basic lab experiments on servomotors, tachometers, synchros, operational amplifiers as components and systems. Use of analog computer. Prerequisite: ETE 3323C.

ETE 4325C Advanced Control Systems
Practical design of control systems. fndustrial applications. Design and hardware implementation of industrial controllers. Control aigorithms. Use of root-locus and Bode plots. Includes lab. Prerequisite: ETE 3323C.
ETE 4426C Advanced Communication Systems
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 4563C Electrical Systems in Industry (3) Design of electrical systems for industrial, commercial and residential buildings in accordance with the National Electric Code. Prerequisites: ETE 3030 or ETE 3034C.
ETE 4565C Electrical Power Systems I (3)
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, or instructor's consent.
ETE 4567C Electrical Power Systems Il
Unsymmetrical faults and loads; the bus impedance matrix solutions for fault studies. Control of voltage, watts, vars. Load flow, economic dispatch and system stabifity. Prerequisite: ETE 4565C, or instructor's consent.
ETE 4665C Digital Process Control Systems (3) Study of digital process control systems. Time frequency response to discrete systems. Digital controllers. Application of industrial processes. Laboratory work with digitai components and systems (includes lab). Prerequisite: ETE 3323C.
ETE 4666C Control System Design
State of the art design of analog and digital control systems. Controllers, control algorithmns, hardware implementation. Use of analog computer \& microprocessors. Prerequisite: ETE 4325. Corequisite: ETE 4665C.
ETG 4905 Independent Study
Specialized intensive study in an area of special interest to the student. Consent of facuity instructor required.

## ETG 4930 Speciał Topics

(1-3)
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.

## MECHANICAL ENGINEERING TECHNOLOGY

Definition of Prefixes
BCN - Building Construction; COP - Computer Programming; ETG - Engineering Technology: General; ETI - Engineering Technology: Industrial; ETE - Engineering Technology: Efectrical; ETM - Engineering Technology: Mechanical; MAC - Mathematics: Calculus.
BCN 3560C Mechanical Systems in
Construction
A survey of plumbing, heating, air conditioning and ventifation systems for building.

## ETG 3510 Dynamics

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 34IIC Manufacturing Processes 1
An introduction into the processes used to convert raw materials into finished products. includes information on casting, forging, machining, and forming.

## ETM 3111 Solar Energy Design

Review of theory and technical aspects of solar energy principles and their use in practical engineering design.
ETM 3312 Fluid Mechanics
A study of the development, transmission and utilization of power through fluid power circuits and controls. Prerequisite: MAC 3412
ETM 3510 Mechanical Design I
Design analysis of elementary machine members including shafting, springs, screws, belts, clutches, brakes, chains, welds, and rivets. Prerequisites: ETG 3510, ETG 3530, or equivalent.

## ETM 3801 Basic Materials

A study of ferrous and nonferrous metals and alloys. Includes atomic structure, bonding, and arrangement of atoms; phase diagrams; reactions within solid materials, and the interrelation of these to show how structure determines the properties of a material.

## ETM 3205 Thermodynamics I

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. Prerequisite: MAC 3412.
ETM 4206 Thermodynamics II
Continuation of the basic course in thermodynamics with particular attention to combustion processes, thermodynamic aspects of fluid flow, compressible flow, steam \& vapor power cycles. Prerequisite: ETM 3205.
ETM 4205L Applied Thermodynamics
Laboratory

Conduction, convection and radiation experiments, regeneration, stirling and air standard power cycles, combustion processes. Prerequisite: ETM 3205.

## ETM 4221L. Mechanical Laboratory I

The most modern available testing equipment is used for experiments in hydraufics, 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.
(Continued)

# Department of Civil and Environmental Engineering Technology 

## ETM 4225 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. Prerequisite: ETM 3205, 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 4643L Air Conditioning and Refrigeration Laboratory

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 3205.

## ETM 4652L Instruments and

Measurements Laboratory
A practical study of common instrumentation elements and measurement systems used in mechanical applications. Prerequisite: ETE 3030 or equivalent.

## 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. Prerequisite: ETM 3205.

ETM 4750 Air Conditioning Design 1
Psychrometry comfort; mechanical refrigeration; heat pumps; load calculators; cooling coil performance; heating and humidification; air distribution duct design fans. Prerequisite: ETM 4720.

## ETM 4752 Air Conditioning Design 11

Air conditioning systems; piping, pumps, hydronics; chillers, boilers, piping and combinations; cooling towers; heat recovery systems; automatic control; instruments. Prerequisite: ETM 4750.

## ETM 4238 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, and ETM 3205.

ETM 4560 Mechanical Power Theory
A study in the theory and application of different mechanical power systems. Includes internal combustion engines, gas turbines, steam systems, $\mathbb{E}$ other specialized systems. Prerequisites: ETM 3205.

ETM 5515 Solar Energy Technology and Applications
(3)

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 economies. Prerequisites: ETM 4225, ETM 3111.

## Civil Engineering Technology

## LeRoy E. Thompson, Professor and

 Chairperson
## Jimmy D. Hahs, Associate Professor

 Vasant Surti, Professor
## Jose T. Villate Associate Professor

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 Technology Accreditation Commission of the Accredition Board for Engineering and Technology (ABET).

## 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, and introduction to computers.
Remark: A student without this preparation may obtain it while completing the upper division program, by taking additional electives.
UPPER DIVISION PROGRAM: Semester Hours
Major Requirements*:
SUR 3140C Advanced Surveying 3
BCN 3762 Codes and
Specifications 3
ETG 3510 Dynamics $\quad 3$
ETG 3520L Materials Testing 1
ETG 3530 Strength of Materials 3
ETC 3210L Soil Mechanics
ETC 3220 Soil Mechanics and
ETC 3410
Foundations
1

ETC 3420
Determinate Structural Analysis 3
Structural Structural Analysis 3
ETC $4440 \quad$ Steel Design 3
ETC 4450 Reinforced Concrete Design
ETC 4502 Geometric Design of Highways

| ETC 4541 | Traffic \& Transportation <br>  <br>  <br>  <br> Engineering <br> Technology |  |
| :--- | :--- | ---: |
| ET1 4671 | Engineering Economy | 3 |
| EVS 3215 | Applied Hydraulics | 3 |
| EVS 3315L | Fluids Laboratory | 1 |
| EVS 3264C | Water Resources | 3 |
| EVS 4204C | Water and Wastewater |  |
|  | Treatment |  |
| *Or demonstrated competency | 3 |  |

Electives: Specialization selected by the student or courses selected with an advisor to meet objectives

$$
\text { (minimum) } \quad \frac{12}{60}
$$

Including both lower and upper division course work, each student must complete a minimum of 23 semester hours in communications, social science, and humanities, and a minimum of 23 semester hours in basic science and mathematics.

## SPECIALIZATIONS:

Four specializations are available to the majors in Civil Engineering Technology, should they choose not to select the above general program with elective courses. These specializations give the Civil Engineering Technology student the opportunity to pursue an area of specialization in Environmental, Planning, Transportation, or Structures.

## 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 Environmental specialization. A student without such preparation may correct any of the deficiencies while pursuing the program by taking additional courses:

## ENVIRONMENTAL

| EVS 3360 | Air Resources | 3 |
| :--- | :--- | :--- |
| EVS 4233C | Unit Operations I | 3 |
| EVS 4234C | Unit Operations 11 | 3 |
| EVS 4463C | Water Supply Sytems | 3 |

## PLANNING

URP 3000
URP 4011
URP 4021
ETC 3570

Urban Planning
Concepts
Planning Implementation 3 Urban Land Use Planning 3

## Introduction to

 Transportation Systems 3
# Department of Civil and Environmental Engineering Technology 

| TRANSPORTATION |  |  |
| :---: | :---: | :---: |
| ETC 3570 | Introduction to |  |
|  | Transportation S |  |
| ETC 4560 | Transportation |  |
|  | Planning | 3 |
| URP 3000 | Urban Planning |  |
|  | Concepts | 3 |
| URP 4021 | Urban Land Use |  |
|  | Planning | 3 |

## STRUCTURES

ETC 4222 Foundation Design \& Construction
ETC 4429 Computer Applications in Structural Analysis \& Design
ETC 4460 Timber Design
ETC 5422 Advanced Structural
Design,
OR
ETC $5470 \quad$ Prestressed Concrete Design

## Master of Science in Environmental and Urban Systems

## Admissions Requirements

The applicant must meet the general University admission requirements and should have completed an undergraduate major in environmental or urban systems, engineering, the natural sciences or a related field. Students who do not meet the stated criteria may be considered for admission if they have completed certain prerequisites and have work experience or other qualifications in the field. Additional 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 36 semester hours of graduate level courses. (Not more than 6 graduate credit semester 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 36 semester hours of graduate credit.

Course Descriptions<br>CIVIL ENGINEERING TECHNOLOGY<br>Definition of Prefixes<br>ETC - Engineering Technology: Civil; ETG Engineering Technology: General.

BCN 3210C Construction Materials
Lecture/Lab - A study of the origins, production and uses of construction materials, such as concrete, steel, aluminum, wood, plastics, brick and stone. Includes testing lab, which consists of testing and evaluating properties of construction materials. Prerequisite: Physics.
ETC 3210L Soil Mechanics Laboratory
Laboratory experiments in identification, properties and behavior of soils. Prerequisite or corequisite: ETC 3220.
ETC 3220 Soil Mechanics and Foundations (3) Identification and properties of soils. Behavior of soils relating to design and construction of foundations for structures and pavements. Prerequisite: ETG 3530, or equivalent.
SUR 3001C Surveying
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.
SUR 3140C Advanced Surveying
Lecture/Lab - Computations and field procedures for earthworks and horizontal and vertical curves. Applications in establishing horizontal and vertical control in boundary determination, mapping, photogrammetry. Laboratory is included which consists of field measurements, layouts and computations. Prerequisite: SUR 3001 C or equivalent.

## SUR 3400C Land Surveying

The theory and practice of land surveying, including computations, procedures, platting, records, land descriptions, legal aspects, control requirements, urban surveys, coastal boundary surveys, astronomical observations, U.S. Government and State requirements. Cadastral surveying and professional registration. Prerequisite: SUR $3001 C$.

ETC 3410 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. Distortion methods of moment area, conjugate beam, elastic weights, and virtual work. Prerequisite: ETG 3530 or equivalent.

ETC 3420 Indeterminate Structural Analysis (3) 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 3410.
ETC 4222 Foundations Design and Construction
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 3220.

ETC 4429 Computer Applications in Structural Analysis and Design Discussion and application of various available computer programs and equipment for structural analysis and design. Application of the stiffness method and the flexibility method of structural analysis. Prerequisites: ETC 3420, ETC 4450, ETC 4440, and Introduction to Computers.
ETC 4440 Steel Design
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 3410.
ETC 4450 Reinforced Concrete Design
The analysis and design of reinforced concrete beams, columns, slabs, retaining walls and footings. Both the working and ultimate strength design methods will be discussed, with primary emphasis corresponding to recent ACI Building Code. Prerequisite: ETC 3410.

## ETC 4460 Timber Design

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
Route surveys by ground and aerial methodreconnaissance, preliminary and location surveys; geometric propeties 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. SUR 3140C and Computer Programming or equivalent.
ETC 4541 Traffic and Transportation Engineering Technology 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: Computer programming and Calculus.

# Department of Civil and Environmental Engineering Technology 

## ETC 5422C Advanced Structural Design

The design of structural systems to formalize the student's knowledge of the behavior of individual components into a final integrated structure. Continuous span and simple span highway bridges, culverts, retaining walls, rigid frames, multistoried buildings and similar problems of interest to the student. Prerequisites: ETC 4440 and ETC 4450.
ETC 5470 Prestressed Concrete Design
The behavior of steel and concrete under sustained load. Analysis and design of pretensioned and post-tensioned reinforced concrete members, and designing these members into the integral structure. Prerequisite: ETC 4450.

## ETC 5507C Advanced Geometric Design of Highways

Parameters governing the geometric design of highways; curve super-elevation; widening on highway curves; elements of intersection design; design of interchanges; use of AASHO design guidelines. Design project required. Prerequisite: ETC 4502.

## ETC 5514 Pavement Design

Analysis and design of sub-base, base and pavement of a roadway. Discussions of flexible pavement and rigid pavement as structural units. Boussinesq's approach. Westergaard's theory. Beams on Elastic Foundations. Prerequisites: ETC 3220 and ETC 4450.

ETG 3502 Statics
Study of forces acting on bodies, including coplanar and non-coplanar forces, concurrent and non-concurrent forces, friction forces and hydrostatic forces and properties of crosssections and bodies. Prerequisites: Physics and Calculus.
ETG 3520L Materials Testing Lab
A laboratory study of principle materials with particular attention to their mechanical properties and significance for engineering uses. Prerequisite or corequisite: BCN 3402 C or ETG 3530 or equivalent.

## ETG 3530 Strength of Materials

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 - OceanographyBiological.
ETC 3570 Introduction to Transportation Systems
Role of transportation in urban and regional
development; elements of the transportation system; characteristics and design considerations of various modes; the travel way; facilities; control and guidance; selected design standards and technology; operational characteristics; planning techniques.

## ETC 4560 Transportation Planning

Principles of transportation planning; origindestination 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 6571 Urban Traffic Characteristics (3) Speed and Volume studies, stream characteristics, traffic flow theory, accident characteristics. Prerequisites: ETC 4560 or Consent of Instructor.
ETC 5572 Transportation Systems
Modeling \& Analysis
Modeling and analysis techniques in transportation. Linear Programming, queueing theory, decision making techniques. Prerequisites: Computer programming or consent of Instructor.
ETC 5573 Urban Mass Transit and Transportation Planning Models of urban growth, population forecasts, trip generation, trip distribution and trip assignment models, model split, system evaluation, transit marketing. Prerequisite: ETC 4541.
ETC 5925C Urban Traffic Workshop
(3)

Selected laboratory problems related to urban traffic. Prerequisite: ETC 4541 or consent of Instructor.

> EVS 3100 Introduction to Environmental and Urban Systems

This course is designed for non-majors as an integrated approach to the role of technological man in the bioshpere. Emphasis is on methods for the environmental quality improvement of land, air, water, transportation, and planning systems.

## EVS 3215C Applied Hydraulics

A course to provide background in basic hydraulic technology. The fundamental theorems are studied and then applied to the collection and sitribution of water and the collection and treatment of wastewaters.

## EVS 3215L Fluids Laboratory

Demonstrations, experiments, and analyses of basic fluid phenomena and principles. Prerequisite: Admission requirements to programs.
EVS 3219C Aquatic Systems
Biological, chemical and physical aspects of freshwater lentic and lotic ecosystems. Emphasis is on the freshwater systems of South Florida.

## EVS 3264C Water Resources

Study of the hydrologic cycle; ground and 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

Technological aspects of ocean systems. Prerequisite: EVS 3219 or consent of Instructor.

## EVS 3360 Air Resources

An introductory course on characteristics of the earth's atmosphere and aspects of air pollution. Classification and sources of air pollutants. Effects of air pollutants on health, vegetation and property. Control measures, legislation and projections.
EVS 3420 C Environmental Instrumentation (3) A lab/field course for the critical evaluation of basic instrumental methods of environmental sampling and analysis. Includes field sampling (sample preparation and storage), laboratory skills, and legal considerations.
EVS 3428 Environmental Management
The wise use of land and water for parks and recreational areas. Environmental design and need for green spaces. Ecologically safe methods for the control of vegetation and insects.

## EVS 3601C Environmental Health

The effects of environmental pollutants on man's health and the quality of life.

## EVS 4233C Unit Operations 1

Principles of wastewater treatment. Physical and biological unit treatment operations, including sludge digestion, Significance of laboratory tests. Laboratory work and occasional field trips required. Prerequisite: EVS 3215.

## EVS 4234C Unit Operations II

A continuation of EVS 4233, incorporating chemical unit operations including effluent disinfection. Laboratory work and occasional field trips required. Prerequisite: EVS 4233C.
EVS 4204 C Water and Wastewater Treatment
Quantity, quality, treatment and distribution of drinking water, physical, chemical, and biological principles of wastewater treatment. Laboratory and Field Trips. Prerequisites: Senior Standing.
EVS 4463C Water Supply Systems
Development of water supplies. Treatment of water including disinfection techniques. Distribution systems. Laboratory work. Prerequisite: EVS 3264C and EVS 4233C, or consent of instructor.

# Department of Civil and Environmental Engineering Technology 

EVS 4905 Independent Study
(1-3)
Individual research studies available to academically qualified students. Consent of Instructor required.

## EVS 4930 Special Topics

(1-3)
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

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
Wastewater collection systems. Integration of unit operations into the planning and design of treatment plants, including sludge handling and disposal. Prerequisites: EVS 4233 and EVS 4234, or consent of instructor.

EVS 5242 Water Quality Management
Predicting and evaluating the effects of human activities on streams, lakes, estuaries and groundwaters; and the relation of human activities to water quality and protection of water resources. Prerequisite: EVS 4234, or consent of instructor.

## EVS 5261 Biological Monitoring of Freshwater Ecosystems

The use of aquatic insects and other invertebrates to monitor changes in the aquatic environment. The ecological aspects of aquatic insects in relation to pollution stress are assessed. Prerequisite: EVS 3219, or consent of instructor.

EVS 5267 Water Quality Indicators
Ecological studies of micro and macroorganisms which are indicators of water quality. Emphasis on bioassays and early warning systems. Prerequisite: EVS 5261, or consent of instructor.

EVS 5361 Air Sampling and Analysis
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
Air pollution control - devices, principles, efficiencies, costs. Gas scrubbers, electrostatic precipitators, thermal deposition, filters, condensors, alter-burners. By-product recovery.

Stoichiometry of combustion mixtures and basic industrial plant designs are discussed. Prerequisite: EVS 3360 or EVR 4231.
EVS 5369 Air Quality Management
A course in air resources designed to review the administrative, legislative and regulatory process in air pollution control. Agencies, surveillance networks, data, criteria for establishing standards, regulations and educational programs.
EVS 5421C Industrial and Environmental Toxicology
Introduction to toxicological studies in the urban environment. Prerequisite: EVS 3601C, or consent of instructor.

EVS 5425C Vector and Pest Control
Effects and management of public health vectors and communicable diseases. Prerequisite: EVS 3601 C , or consent of instructor.

## EVS 5426C Advanced Environmental Instrumentation

A laboratory oriented course, dealing with the most sensitive and sophisticated instruments used in environmental analysis. Covers theory of specialized laboratory procedures and instruments, optics, electronics, design, cost, versatility, and operational instrument parameter considerations. Assigned projects. Prerequisite: EVS 3420C, or consent of instructor.
EVS 5682 Solid Waste Management (3)

In-depth study of the solid waste problem. Topics include municipal, industrial, and agricultural generation of wastes; municipal collection systems; methods of disposal, hazardous wastes, and energetic considerations in the recovery and recycle of wastes.

## EVS 5741 Noise

Fundamentals of sound and noise. Health hazards and other effects. Case studies - measurement and noise control in transportation, environment, construction and industry. Abatement laws and ordinances in Dade County and worldwide.
EVS 5905 Independent Study
Individual research studies available to academically qualified students on graduate status.
EVS 5930 Special Topics
Specific aspects of environmental technology and urban systems not available through formal course study. Open to academically qualified students only.

## EVS 6050 Environmental and

 Human FactorsEffects, assessment and control of physical and chemical factors in the natural and man-made environments, including noise, electro magnetic radiation, air and water polfution, public and occupational health, vector control, communi-
cable diseases. Prerequisites: Program admission requirements.
EVS 6051C Advanced Unit Operations I
Theory and design of physical, chemical, and biological unit operations as applied to the advanced treatment of water and wastewater. Prerequisite: EVS 5242.
EVS 6052C Advanced Unit Operations II (3) A continuation of EVS 6051 C including the reuse of treated wastewaters and of sludges. Prerequisite: EVS 6051C.
EVS 6053C Advanced Treatment Systems (3) Integration of unit operations into advanced treatment systems for waters and wastewaters. Prerequisite: EVS 6052C.

EVS 6054 Aquatic Reclamation
Evaluation of techniques to improve the water quality of lakes, canals and rivers. Cultural eutrophication corrective measures are emphasized. Prerequisites: EVS 3219, EVS 5267, or consent of instructor.
EVS 6269 C Industrial Wastewater Treatment
Characteristics and composition of industrial wastewaters. Sampling techniques and analyses. Water conservation and reuse. Joint industrial-municipal collection and treatment of wastewaters. Prerequisite: EVS 6053C.

## EVS 6422 Environmental Assessment

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

EVS 6424 Air-Land Interface Studies
An environmental evaluation of the relationship between the atmosphere and the continental surfaces in a non-urban or natural system. Prerequisite: EVR 5236, or consent of instructor.
EVS 6603 Advanced Industrial and Environmental Toxicology
A continuation of EVS 5421. Investigation of toxic substances in air, water, and food in the industrial environment. Prerequisite: EVS 5421 or Consent of Instructor.
EVS 6939 Seminar
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

OCB 4702 Aquatic Products
Commercial products, already developed, which may be obtained from aquatic systems. Prerequisite: EVS 3268, or consent of instructor.

## Home Economics

OCB 6631 Air-Water Interface Studies
Mechanisms of materials transfer from water bodies to the atmosphere and from the atmosphere to the water will be discussed. Prerequisite: EVS 3360.
URP 3000 Urban Planning Concepts
Planning fundamentals; objectives and scope of urban planning; theories of land use patterns; population studies; cohort survival technique; employment studies; economic studies; estimating demand for various land usage; physical, social, political and managerial conditions; comprehensive plan and its elements, aesthetics and design concepts for communities; implementation tactics.

URP 4011 Planning Implementation
Planning law and administration; practice in formulation of zoning ordinance; land subdivision, urban renewal; trends and innovations in control of growth - case studies in U.S.A.; critical path method (CPM); planning, programming, budgeting systems (PPBS) and capital improvement programs. Prerequisite: URP 3000.

URP 4021 Urban Land Use Planning
Elements of the gneral 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 4030 Analysis of Technological Systems

Fundamental concepts of systems analysis; types of systems; input-output relationship; positive and negative feedback control; generation of system alternatives; tradeoff and sensitivity analysis; elementary optimization techniques.

URP 5400 Urban and Regional Analysis
Theories of urban and regional growth; collective utility analysis; input-output models in planning; application of linear programming to regional social accounting; economic base analysis. Prerequisite: Computer Programming or consent of instructor.

URP 5425 Environmental Planning
Ecological principles necessary to preserve a quality environment are presented by means of planning policies, processes and environmental indicators. Emphasis will be placed on the impact of growth on environmental quality. Prerequisites: EVS 3360, URP 3000 and EVS 3264.

URP 6423 Environmental Modeling
Evaluation of regional resources, environmental stresses, and considerations in regional systems; systems analysis in environmental management and its relation to decision making; modeling of air and water systems. Prerequisites: Computer Programming, or consent of instructor.


URP 6821 Urban Systems Analysis
The urban areas as a complex system; modeling the urban growth processes; statistical decision making games; modeling and simulation; cost effectiveness; application of the theory; a system-wide view of the Miami area. Prerequisite: Computer Programming or consent of the instructor.

## Home Economics

Betty Morrow, Associate Professor and Chairperson
Adele Smith, Associate Professor
Penelope Storm, Associate Professor
Greta Howard, Assistant Professor
Susan James, Assistant Professor
The Department of Home Economics offers two undergraduate degrees as well as graduate courses to serve other programs in the University.

## Apparel Management Degree

The Department of Home Eccnomics offers a baccalaureate degree in Apparel Management. The Apparel Management program offers specialites in design, manufacturing, or merchandising management. All majors are required to obtain vocational experience through the completion of career traineeships.
LOCATION: Tamiami Campus only.
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required: General education requirements for Associate of Arts degree; associate in Fashion Design for those entering that specialty.
Recommended: courses in fashion, accountng, marketing, economics, art, psychology, and management.

## Apparel Design Management

The program is open only to students who have completed an Associate degree in fashion design. It is planned for those desiring careers in the apparel industry in line coordination, production control or supervision, as well as design.

Semester Hours

## Core Courses:

14
HOE 3010
Orientation
1
CTE 3401L Survey of Textiles4

CTE 3761
CTE 4442L ashion Production and Distribution 3

HME 3210 Textile \& Apparel Testing3

[^5]
## Apparel Manufacturing Management

This specialty provides an overview of typical operations in apparel production, as well as supervisory and management skills necessary to oversee these operations. The program utilizes the resources available in the South Florida apparel industry.

Semester Hours
Core Courses:
HOE 3010 Orientation 1
CTE 340IL Survey of Textiles 4
CTE 3761
Fashion Production and Distribution
CTE 4442L Textile and Apparel Testing
HME 3210 Personal and Career Management

## Home Economics

| Specialization: COP 3172 |  | 38 |
| :---: | :---: | :---: |
|  | Basic Programming for Business | 3 |
| STA 4664 | Statistical Quality |  |
|  | Control | 3 |
| CTE 3742L | Commercial Pattern |  |
|  | Analysis | 2 |
| CTE 3743L | Pattern Grading |  |
|  | Analysis | 2 |
| CTE 3762L | Cutting Analysis and |  |
|  | Material Utilization | 3 |
| CTE 3763L | Machine Evaluation and |  |
|  | Selection | 3 |
| CTE 4764L | Industrial Apparel |  |
|  | Assembly and |  |
|  | Quality Control | 3 |
| CTE 4765L | Apparel Production |  |
|  | Planning and Costing | 4 |
| CTE 4766L | Apparel Work |  |
|  | Measurement | 3 |
| ETI 3670 | Industrial Financial |  |
|  | Decisions | 3 |
| ETI 3661 | Plant Layout | 3 |
| ET1 4681 | Industrial Supervision | 3 |
| ETI 4671 | Engineering Economy | 3 |
| Career Traineeship: |  | 6 |
| CTE 4880 | Apparel Field |  |
|  | Experience | 3 |
| Advised Elective |  | 3 |

Advised Elective

## Apparel Merchandising Management

The Apparel Merchandising specialization is designed for students seeking management careers in the fashion industry in buying, coordination, advertising, customer relations, operations, visual merchandising, manufacturing and merchandise management.

| Core Courses: | Semester Hours |  |
| :---: | :---: | :---: |
|  |  | 14 |
| HOE 3010 | Orientation | 1 |
| CTE 3401L | Survey of Textiles | 4 |
| CTE 3761 | Fashion Production and Distribution | 3 |
| CTE 4442L | Textile and Apparel Testing | 3 |
| HME 3210 | Personal and Career Management | 3 |
| Specilization: COC 3300 |  | 39 |
|  | Introduction to |  |
|  | Computers and Computer |  |
|  | Applications | 3 |
| COA 3410 | Consumer Resources | 3 |
| CTE 3312 | Clothing and Consumer | 2 |
| CTE 3312L | Clothing and |  |
|  | Consumer Lab | 2 |
| CTE 3602 | Fashion and Culture | 4 |
| CTE 3852L | Visual Merchandising | 3 |
| CTE 4821 | Quantitative Decisions |  |
|  | in Fashion Retailing | 3 |



3
Career Seminar 1
MAR 3023 Marketing Management 3
MAR 4153 Retail Management 3
MAR 4154 Cases in Retail
Management
3
3
6
6
3

## Home Economics Degree

The Department of Home Economics offers a baccalaureate degree in Home Economics. Those desiring management careers in business, industry or government may specialize in Management and Consumer Affairs, Clothing and Textiles, Family and Child Development, and Food and Nutrition, or they may choose a General Home Economics program. All majors are required to obtain vocational experience through the completion of a career traineeship. LOCATION; Tamiami Campus only.
DEGREE: Bachelor of Science
LOWER DIVISION PREPARATION:
Required: general education requirements.
Recommended: courses in home economics, fashion, chemistry, economics, art, communication and business management.

## 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.

|  | Semester Hours |
| :--- | ---: |
| Core Courses: | 20 |

HOE 3010 Orientation 1
CHD 3220
Child Development:
Infancy and Early
Childhood 3
COA 3410 Consumer Resources 3
FAD 4230 Family Life Cycle 3
FOS 3004 Food and Consumer 3
HHD 4420 Home Furnishings and Equipment 4
HME $3210 \quad$ Personal and Career
HME 3210

| Specialization: |  | 31 |
| :---: | :---: | :---: |
| CHM 3030 | Survey of General |  |
|  | Chemistry and Lab | 4 |
| CHM 3200 | Survey of Organic |  |
|  | Chemistry and Lab | 4 |
| CTE 3310L | Principles of Clothing |  |
|  | Construction | 3 |
| CTE 3401L | Survey of Textiles | 4 |
| CTE 3602 | Fashion and Culture | 4 |
| CTE 3761 | Fashion Production and Distribution | 3 |
| CTE 4340L | Advanced Clothing |  |
|  | Construction | 3 |
| CTE 4352L | Tailoring | 3 |
| CTE 4741L | Pattern Alterations | 3 |
| Advised Elect |  | 6 |
| Career Traineeship |  |  |
| CTE 4880 | Apparel Field |  |
|  | Experience | 6 |

## Management and Consumer Affairs

This specialization earns 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.

Semester Hours
Core Courses:
20
HOE 3010 Orientation 1
CHD 3220 Child Development:
Infancy and Early Childhood 3
COA 3410 Consumer Resources 3
FAD 4230 Family Life Cycle 3
FOS 3004 Food and Consumer 3
HHD 4420 Home Furnishings and Equipment

4
HME 3210 Personal and Career Management
Specialization: 39
COA $3130 \quad$ Personal and Family
COA Economics 3
COA 4440 Consumer Counseling
COA 4460 Consumer and
Technology 3
COA 5450 Consumer Legislation 3
CTE 3312 Clothing and the
CTE 3312L Clothing and the Consumer Lab

2
Consumer Lab 2
CTE 3401L Survey of Textiles 4

## Home Economics

| FAD 4340 | Family Development: <br> Adulthood and Aging | 3 |
| :--- | :--- | :--- |
| HHD 3151 | Housing: Shelter and <br> the Consumer | 3 |
| MAN 3010 | Organization and <br> Management <br> Public Policy and | 3 |
| PAD 3034 | Administration <br> SOP 4645 | Consumer Psychology <br> SOP 4649 |
| Experimental <br> Consumer Psychology <br> Career Traineeship in <br> Consumer Affairs | 4 | 6 |

Career Traineeship:

## 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.

|  | Semester Hours |  |
| :---: | :---: | :---: |
| Core Courses: |  | 20 |
| HOE 3010 | Orientation | 1 |
| CHD 3220 | Child Development: |  |
|  |  |  |
|  | Childhood | 3 |
| COA 3410 | Consumer Resources | 3 |
| FAD 4230 | Family Life Cycle | 3 |
| FOS 3004 | Food and Consumer | 3 |
| HHD 4420 | Home Furnishings and Equipment | 4 |
| HME 3210 | Personal and Career |  |
|  | Management | 3 |
| Specialization: |  |  |
| CHD 4230 | Child Development: |  |
|  | Later Childhood | 3 |
| CHD 4830 | Child Care Services | 3 |
| CTE 3602 | Fashion and Culture | 4 |
| FAD 3232 | Relationships | 3 |
| FAD 3253 | Parenting | 3 |
| FAD 4340 | Family Development: <br> Adulthood and Aging |  |
|  |  |  |
| FAD 4800 | Management of Human |  |
|  | Care Programs | 3 |
| FAD 4940 | Human Development |  |
|  | Practicum | 3 |
| HUN 3122 | Nutrition and Culture |  |
| HUN 4410 | Nutrition Infancy |  |
|  | through Adolescence | 3 |
| Career Traineeship: |  |  |
| HOE 4940 | Career Traineeship in |  |
|  | Home Economics | 6 |

Advised Elective

## 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.


## 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.

|  | Semester |
| :--- | ---: |
| Hours |  |
| Specialization: | 52 |
| Orientation | 1 |
| Clothing and Textiles courses | 9 |
| Family and Child Development courses 12 |  |
| Food and Nutrition courses | 9 |
| Housing courses | 9 |
| Consumer Management courses | 12 |
| Advised Electives |  |
|  |  |

## Course Descriptions

CLOTHING AND TEXTILES
Definition of Prefix
CTE - Clothing and Textiles
CTE 3310L Principles of Clothing
Construction
(3)

Includes experience and understanding of basic principles of clothing construction and leads to
more advanced techniques and learnings. Course individualized according to student's needs and expertise.
CTE 3312 Clothing and Consumer
(2)

Study of various topics pertaining to the consumer and clothing choices including wardrobe inventory, optical illusions, fashion terminology, and success dressing. Corequisite: CTE 3312L.
CTE 3312L Clothing and Consumer Lab
(2)

Evaluation of apparel construction methods. Includes construction of a simple garment. Corequisite: CTE 3312.

CTE 3401L Survey of Textiles
Study of the physical properties of textile fibers, yarns, fabrics, color applications, and finishes, as they relate to care, performance, and consumer satisfaction. Identification and analysis of fibers and fabrics will be emphasized.
CTE 3602 Fashion and Culture
Study of evolution of apparel and its relationship to psychological, sociological, technological, historic and cultural factors.
CTE 3735L Advanced Fashion Illustration (3) Advanced illustration work in rendering fabric drapery characteristics, construction details, color and texture. Prerequisite: One fashion illustration course.
CTE 3742L Commercial Pattern Analysis
(2)

Overview of theory, geometric principles and methods of pattern making for apparel and allied products. Development of a set of patterns. Corequisite: CTE 3743L.
CTE 3743L Pattern Grading Analysis
(2)

Overview of theory, principles and methods used in commercial pattern grading in accordance with accepted size ranges and specifications. Corequisite: CTE 3742L.
CTE 3761 Fashion Production and Distribution
Study of apparel industries, with supervised observation of various aspects of production and distribution.
CTE 3762L Cutting Analysis and
Material Utilization
(3)

Overview of cutting operations including fabric inspection, scaling, marking, spreading, cutting, and costing. Effective material utilization emphasized.
CTE 3763L Machine Evaluation and Selection
Study of thread, needles, stitch and seam formation as it relates to apparel products. Survey of industrial sewing and pressing equipment and attachments. Cost considerations and payback periods examined.

# Home Economics 

CTE 3815 Apparel Retail Operations
Study of the non-merchandising functions of an apparel store such as advertising, control, personnel, customer services, distribution. Includes guest presentations on maintenance, warehousing and security.
CTE 3852L Visual Merchandising
Study and application of the principles and techniques of creative "in store" and window displays. Field work included.
CTE 4340L Advanced Clothing Construction (3) Additional experience in handling special fabrics, pattern and garment fitting; and application of principles and techniques of clothing construction. Prerequisite: CTE 3310L or equivalent.

## CTE 4352L/5354L Tailoring

Application of custom tailoring techniques to construction of suit or coat, with emphasis on fabric selection and pattern alteration. Graduate students will have additional requirements. Prerequisite: CTE 4340 L or equivalent.

CTE 4421L/5421L Creative Textiles
Application of textiles principles to designing and constructing textile fabrics. Includes macrame, batik, tie-dying, weaving, knitting, and crocheting. Graduate students have additional requirements.
CTE 4442L Textile and Apparel Testing
Fundamentals of the commercial testing methods used to evaluate fabric and garment performance. Includes statistical analysis of test results. Prerequisite: CTE 3401 L or equivalent.
CTE 4723L/4724L Advanced Design Seminar I and II
Workroom atmosphere in which apparel design majors produce a line within given restrictions and industrial standards using draping and/or flat pattern methods. Prerequisite: A.S. degree in Fashion Design or equivalent.
CTE 4741L/5741L Pattern Alterations
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. Graduate students will have additional requirements. Prerequisite: CTE 3310L or equivalent.
CTE 4764L Industrial Apparel Assembly and Quality Control
Analysis of the theory and methods of the assembly of apparel and allied products. Several apparel products are evaluated to determine construction sequence, machinery requirements, cost control, and quality specifications.
CTE 4765L Apparel Production Planning and Costing
Integrates all phases of apparel production by
planning the best production cycle for an apparel item from receipt of raw materials to finished product. Topics include pay systems, work-in-process control, production scheduling and costing techniques. Prerequisites for Apparel Manufacturing majors: CTE 4763L and CTE 4764L.
CTE 4766L Apparel Work Measurement (3) In-depth study of procedures used to establish piece work rates for sewing operations by using time study and M-TM methods. Includes incentive systems, follow-up studies and how to set an apparel plant on a piece work system. Prerequisites: CTE 3763L and CTE 4764 L or equivalent.
CTE 4821 Quantitative Decisions for Fashion Retailing
Review of basic retailing math, and application of financial management principles, with emphasis on relationships between sales volume, stock turnover, expenses and profits.
CTE 4822 Quanitative Decisions II (3)

Further exploration of financial management in apparel sales organizations based on dollar and unit figures. Emphasis on profit influences. Prerequisite: CTE 4821 or equivalent.
CTE 4827 Fashion Buying and Merchandising Strategies
Study of major considerations involved in buying and marketing of fashion merchandise. Includes development of merchandise assortment plans, with emphasis on effective store distribution. Prerequisite: CTE 4821.
CTE 4831 Apparel Inventory Management (3) Study of management of fashion merchandise to increase sales and profit. Includes use of computer hardware and software to aid inventory control and decisionmaking. Special factors of distribution and stock control for chain and branch stores, as well as warehouse operations will be studied. Prerequisite: CTE 4827 or equivalent.

## CTE 4851 Fashion Promotion

Study of processes and actions that move fashion merchandise including evaluation of their effectiveness to the retailer. Includes guest presentations in advertising, display, public relations.
CTE 4853 Advanced Visual Merchandising (3) Seminar and field work in assisting with visual displays for product promotion. Prerequisite: CTE 3852L or equivalent.
CTE 4880 Apparel Field Experience
Supervised "on-the-job" training and periodic seminars. Consent of faculty instructor required.

## CTE 4890 Fashion Merchandising <br> Career Seminar

Exploration of local fashion-related career opportunities and proficiencies required for these positions. Guest speakers utilized.

CTE 4905/5905 Independent Study
(1-3)
Specialized intensive study of a topic not otherwise offered in the University. Consent of faculty supervisor and department chairperson is required.

## CTE 4930 Special Topics

For groups of students who wish an intensive study of topics not otherwise offered in the University. Consent of faculty supervisor and department chairperson is required.

## CTE 5345 New Trends in Clothing

 ConstructionStudy of the latest techniques for sewing today's fabrics, including some factory methods. Prerequisite: CTE 4340 L or equivalent.

CTE 5355L Tailoring Menswear
Application of tailoring techniques commercially used in the production of menswear, through the construction of a knit jacket and trousers. Prerequisite: CTE 4340 L or equivalent.
CTE 5422L Recent Developments in Textiles (3) Exploration into recent developments in textile fibers and fabrics. Laboratory exercises in textile-testing procedures.
CTE 5746L Pattern Design
Principles of pattern fitting will be explored, through the construction of basic sloper. Samples of various pattern design techniques will be constructed. Students will design and construct at least one garment. Prerequisite: CTE 4741L or CTE 4340L.
CTE 5880 Apparel Field Experience
Supervised field placement in local appare] settings for professionals in apparel careers. Permission of chairperson required.
CTE 5930 Textiles and Clothing Seminar (1-3) By permission of instructor only.
CTE 5990 Apparel Shop Entrepreneurship (3) Planning and management of small apparel manufacturing or retail organizations. Includes development of a mock apparel shop.

## FAMILY AND CHILD DEVELOPMENT <br> Definition of Prefixes

CHD - Child Development; FAD - Family Development
CHD 3220 Child Development: Infancy and Early Childhood
Systematic study of total developmental process in the child from conception through early childhood emphasizing the effects of home and family environment. Includes observational experiences. Prerequisite: DEP 3001, or equivalent.

## Home Economics

## CHD 4230 Middle Childhood and Adolescent Development

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 4830/5830 Child Care Services
Analysis of methods for meeting the needs of parents and children using child care facilities. Emphasis on nurturing interaction with children, effective utilization of equipment, materials and community resources, and parent education. Observation/participation experiences provided. Graduate students will have additional requirements.
CHD 4905/5906 Independent Study
CHD 5264 Advanced Studies in Child Development
Survey of current literature on selected areas, analysis of trends and issues, and investigation of recent research in Child Development. Prerequisites: CHD $3220, \mathrm{CHD} 4320$, or equivalent.
CHD 5930 Special Topics in Child Development
Special offerings of child development topics not covered in depth in the regular curriculum. Requires permission of instructor.
FAD 3232 Relationships
Emphasizes attitudes, feelings, communication, life styles in varying interpersonal relationships. Includes human sexuality component.

## FAD 3253 Parenting

Overview of changing concepts of parenthood and childhood. Explores contemporary issues concerning parenting with emphasis on maximizing human potential of parents and children. Open to non-majors. Recommended prerequisite: DEP 3001.
FAD 4230 Family Life Cycle
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. Includes field component with community agencies serving families.

FAD 4340/5341 Family Development:
Adulthood and Aging

Extension of the study of developmental patterns with emphasis on physical, intellectual, social and emotional influences with particular emphasis on the family and/or family substitute. Graduate students will have additional requirements.

> FAD 4800 Management of Human Care Programs

Organization, management and administration of programs providing care services traditionally met within the family such as child care and day
care for the elderly. Emphasis on use of family members and community resources for program enrichment.

FAD 4905/5905 Independent Study in Family Development Individually selected program of supervised study in a special area of Family Development.
FAD 4930 Special Topics
(1-3)
For groups of students who wish an intensive study of topics not otherwise offered. Consent of faculty supervisor and department chairperson is required.
FAD 4940 Human Development Practicum (2-3) 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
Effects of varying environments on members of households, interpersonal relationships, family values, life style, and interaction between members.
FAD 5260 Family Development
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 Human Sexuality Workshop
Provides a cognitive overview of human sexuality. Main emphasis is on the affective dimension - an exploration of one's attitudes and values related to his or her sexuality and that of others.

## GENERAL HOME ECONOMICS

Definition of Prefix:
HOE - Home Economics: General

## HOE 3010 Orientation

Introduction to the specialities in the Home Economics Department and orientation to the university. Includes personal assessment of basic skills needed for academic and vocational success.
HOE 3949 Cooperative Education in Home Economics
(3-6)
Supervised full time work for Home Economics students. Limited to students admitted to the Co-op Program with consent of advisor. Evaluation and report required.
HOE 4930 Special Topics
(1-3)
For groups of students who wish an intensive study of topics not otherwise offered. Consent of faculty supervisor and department chairperson is required.

## HOE 4940 Career Traineeship in Home

## Economics

(3-6)
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 <br> COA - Consumer Affairs; HME - Home Management \& Equipment; HHD - Housing \& Home Design.

COA 3130 Personal and Family Economics (3) Examination of factors related to achieving personal and family goals through systematic financial planning. Overview of management by objectives, credit, insurance, investment, homeownership, and taxation, with opportunities for personal and family application.

## COA 3410 Consumer Resources

Evaluation of information needed to make effective consumer choices. Includes sources of consumer help and protection, pertinent legislation, and ecological conditions with which consumer interacts. Experiences provided in product and service comparison.

## COA 4440 Consumer Counseling

Application 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 3210, and permission of instructor.
COA 4460 Consumer and Technology
Study of the interrelationship of the consumer and the industrial/business community, including the roles and responsibilities of each. Special topics include the effect of decisions on product cost, life styles and the environment, as well as the role of government in the marketplace.

## COA 4942 Career Traineeship in Consumer Affairs

Community based, supervised practical experience in consumer-related career to provide exploration and application opportunities. Permission of instructor required.

## COA 5450 Consumer Legislation

Designed to provide those presently working in the consumer field, or preparing for a career related to consumer affairs, with current information on legislation affecting the consumer. Utilizes professionals in the community.

# Apparel Manufacturing Management Certificate Program 

HHD 3151 Housing: Shelter and Consumer (3) Shelter alternatives and their effect on family and community. Analysis of types of housing and financing plans currently available to consumers.
HHD 4420 Home Furnishings and Equipment
Principles involved in the construction, selection, operation, and care of furnishings and equipment and their relationship to their environmental use. Prerequisite: IND 3020, or equivalent.
HME 3210 Personal and Career Management
Application of management principles to personal and family living, as well as career effectiveness. Emphasis on planning and organizational skills as assets in the business world as well as tools with which to promote personal and family satisfaction. Open to non-majors.
HME 4230 Management of Personal and Family Resources
Application of management principles to personal and family decisions including human and non-human resources. 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 4905/5905 Independent Study
(1-3)
fndividually selected program of supervised study in a specific area of home management or family economics. Prerequisite: Permission of instructor.

## HME 4940 Career Traineeship in Management

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
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
(3)

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 psyco-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
(1-3)
Short term study of special facets, issues and trends of home management and family economics.

## Apparel Manufacturing Management Certificate Program

Director: Adele Smith (Home Economics) Coordinating Committee:
Gabriel Aurioles (Industrial Systems), and Betty Morrow (Home Economics).
LOCATION: Tamiami Campus only.
A professional certificate is offered in Apparel Manufacturing Management acknowledging that students have demonstrated manufacturing management competencies specifically related to the apparel industry. This certificate is primarily designed to meet the needs of those presently employed in the apparel industry who desire the management skills necessary for career effectiveness and mobility. The courses are planned and taught under the guidance of an advisory committee of local leaders in the apparel industry.

A Certificate in Apparel Manufacturing Management will be awarded upon satisfactory completion of twenty credits as listed in the Certificate requirements. These courses may be taken by Special Students with the advice of the Certificate Program Director. Students should complete an application form at the time of their first course registration.

## Course Descriptions

Definition of Prefixes
CTE - Clothing and Textiles
Required Courses:
Remarks: It is recommended that the courses be completed in the order listed.
CTE 3742L Commercial Pattern Analysis (2) Overview of geometric principles, and methods of pattern making for apparel and allied products. Development of a set of industrial patterns. Corequisite: CTE 3743L.
CTE 3743L Pattern Grading Analysis
Overview of theory, principles and methods used in commercial pattern grading in accordance with accepted size ranges and specifications. Corequisite: CTE 3742L.

CTE 3762L Cutting Analysis and Material Utilization
Overview of apparel cutting operations, including fabric inspection, scaling, marking, spreading, cutting, and costing. Effective material utilization emphasized.
CTE 3763L Machine Evaluation and Selection
Study of thread, needles, stitch and seam formation as it relates to apparel products. Survey of industrial sewing and pressing equipment and attachments. Cost considerations and payback periods examined.
CTE 4766L Apparel Work Measurement (3) ln-depth study of procedures used to establish piece work rates for sewing operations by using time study and M-T-M methods. Includes incentive systems, follow-up studies and how to set an apparel plant on a piece work system. Prerequisites: CTE 3763L and CTE 4764L or equivalent.
CTE 4764L Industrial Apparel Assembly and Quality Control
Analysis of the theory and methods of the assembly of apparel and allied products. Several apparel products are evaluated to determine construction sequence, machinery requirements, cost control, and quality specifications.

## CTE 4765 Apparel Production Planning

 and Costing Integrates all phases of apparel production by planning the best production cycle for an apparel item from receipt of raw materials to finished product. Topics include pay systems, work-in-process control, production scheduling and costing techniques. Prerequisites for Apparel Manufacturing majors: CTE 4763L and CTE 4764L.
## Industrial Systems

## Industrial Systems Department

Donald F. Wallace, Associate Professor and Acting Chairperson
Gabriel G. Aurioles, Associate Professor Sybil de Groot, Professor
Evodio Llevada, Assistant Professor Neil Hout-Cooper, Assistant Professor John Remington, Associate Professor Margaret G. Wilson, Assistant Professor

The individual who wishes to acquire a technical supervision and management background which emphasizes industrial operations will be served by the Industrial Technology major.

The Department offers a major in Industrial Technology with several identified areas of technical study designed for the student desiring a career in business, labor, industry or aviation. Technical Coursework may be in the areas of Air Traffic Control, Pilot/Aviation Administration, Graphic Arts, Industrial Systems, Industrial Technology, or Labor Studies.

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.

Each Industrial Technology major must complete the required departmental core courses (24 semester hours) and the coursework required by one area of technical study.
The following departmental core courses are required of all students obtaining the Industrial Technology degree.

Semester Hours
Core Courses:
ETD 4525

ETI 3603
ETI 3670
Engineering Design Graphics I or an Engineering Drawing course at the junior college level.3 Industrial Operations 3 Industrial Financial Decisions
ETI 4633
ETI 4671 Introduction to Labor Studies

3
ETI 4681
Engineering Economy 3 Engineering Economy
Industrial Supervision

## STA 3132

Business Statistics Computer language course
(Selected from COP 3112, COP 3170, or COP 3172.)

## Industrial Technology

LOCATION: Tamiami Campus Only DEGREE: Bachelor of Science
Lower Division Preparation:
A.A. or A.S. degree with specialization in a Technical area.
Upper Division Program:

|  | Semester Hours |  |
| :---: | :---: | :---: |
| Core Courses |  | 24 |
| Area of techni | dy | 30 |
| MAC 3233 | Calculus* | 3 |
| PHY 3050 | Physics w/o Calculus* | 3 |
| ETI 3110 | Quality Control | 3 |
| ETI 3444 | Automation | 3 |
| ETI 3645 | Production Planning and Control 1 | 3 |
| ETI 4683 | Human Factors Engineering | 3 |
| ETI 3646 | Production Planning and Control II | 3 |
| ETI 4613 | Methods Analysis | 3 |
| ETI 4650 | Industrial Information |  |
| ETI 4660 | Materials Handling | 3 | Approved Electives

Remarks: *Completion at Lower Division level with a grade of "C" or better is accepted; to be substituted with course from Mechanical or Electrical Engineering Technology.
or
LOCATION: Tamiami Campus Only
DEGREE: Bachelor of Science
Lower Division Preparation:
To enter this technical area, the student must be selected by the Federal Aviation Administration. The Bachelor's Degree is the result of a cooperative program between Miami-Dade Community College or Broward Community College and Florida International University.
Upper Division Program
Core Courses:
Area of Technical study:
ETG 3949 Cooperative Education
ETI 3700 Safety in Industry 3
ETI 4470 lndustrial Research and Development3

ETI 4421
Materials Processing 3

ETI 4620 Value Analysis3
3
3

ETI 4632 Personnel Relations 3
ETG 4949 Cooperative Education Technology

# Industrial Systems 

| ETI 4634 | Labor Dispute Resolution | 3 |
| :---: | :---: | :---: |
| ETI 4635 | Administration of |  |
|  | Labor Organizations | 3 |
| Approved Electives: |  | 21 |
| ET] 3700 | Safety in Industry | 3 |
| ECP 4203 | Labor Economics | 3 |
| MAN 4401 | Industrial Relations | 3 |
| MAN 4410 | Labor-Management and Collective |  |
|  | Bargaining | 3 |
| SOC 5261 | Industrial Sociology | 3 |
| AMH 3500 | U.S. Labor History | 3 |
| PAD 5427 | Public Sector |  |
|  | Collective Bargaining | 3 |
| ETI 4708 | Health Hazards in |  |
|  | Industry | 3 |
| ETI 4930 | Special Topics | 3 |
|  | or |  |
| LOCATION: Tàmiami Campus Only |  |  |
| DEGREE: Bachelor of Science |  |  |
| Lower Division Preparation: |  |  |

A.A. or A.S. degree with a specialization in Drafting.
Upper Division Program:
Core Courses: 24
Area of technical study:
ARV 3210 Reprographics 30

ARV 4150 Photographics 3
ARV 4250 Planographic Processes 3
ETI 4470 Industrial Research and Development 3
ETI 3110 Quality Control 3
ETC 4526 Engineering Design
Graphics 11
Electrical/Electronic
Power Systems 3
$\begin{array}{ll}\text { ETl } 3645 & \begin{array}{l}\text { Production Planning } \\ \text { and Control 1 }\end{array} \\ & \end{array}$
$\begin{array}{ll}\text { ETl } 3645 & \begin{array}{l}\text { Production Planning } \\ \text { and Control 1 }\end{array}\end{array}$
ETI 4650 Industrial Information Systems
Industrial Sales
ETI $4690 \quad$ Industrial Sales 3
Approved Electives

## Professional Certificate Programs

## 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 certificate is intended to provide skills which will be directly applied in industry.

The Certificate will be awarded to any student who successfully completes a specified 18 -credit program.

## Industrial and Labor Relations

The objective of the Professional Certificate Program in Industrial and Labor Relations is to produce options to both baccalaureate degree seeking students and pre and post baccalaureate students in the fields of Labor Studies, Industrial Personnel Operations and Collective Bargaining and Labor-Management Relations.

The Certificate will be awarded to any student who successfully completes a specified 18 credit program.

## Production and Manufacturing

The objective of the Professional Certificate Program in Production and Manufacturing is to provide students desiring professional work in the field of Production and Manufacturing with a sequence of courses which will update those students already employed and will satisfy local industry's need for technologically skilled individuals in Production and Manufacturing. The Certificate includes courses designed to give the student knowledge of processes, cost, planning and control in addition to electives in specialized subjects.

The Certificate will be awarded to any student who successfully completes a specified 18 credit program.

## INDUSTRIAL SYSTEMS <br> Definition of Prefixes

ARV - Arts: Vocational; BCN - Building Construction; ETC - Engineering Tech.: Civil; ETD - Engineering Tech.: Drafting; ETE Engineering Tech.: Electrical; ETG - Engineering Tech.: General; ETI - Engineering Tech.: Industrial; ETM - Engineering Tech.: Mechanical; FOS - Food Sciences; HES Health, Education \& Safety; OTH - Occupational Therapy; STA - Statistics.

## ARV 3210C Reprographics

Laboratory experiences in the theory and practice of communicating through graphics; includes experiences in copywriting, editing, image generation, image assembly, photo conversion, image carrier preparation, transfer, and finishing.

## ARV 4150 Photographics

Laboratory experiences in the theory and practice of photography as used in visual communications. Develops proficiencies in camera work, developing, and printing.
ARV 4250 Planographic Processes
Laboratory experiences in the theory and practice of offset lithography. Emphasis will be directed toward skill development in design and copy preparation, process photography, stripping, platemaking, and duplicator operation.

BCN 3702C Construction Technology
Laboratory experiences of basic production, management and personnel practices as they relate to construction systems and projects.
BCN 3730 Construction Safety
Introduces occupational safety hazards associated with the construction industry. Emphasis placed on recognition, evaluation and control of safety hazards particularly as they relate to the Occupational Safety and Health Act.
BCN 4251C Architectural Drafting
Laboratory experiences in designing structures, developing working drawings and specifications for constructed projects. Includes development of site, foundation, floor, elevations, plumbing plans, and specilications.
ETC 4252L Construction Processes
Laboratory experiences in the principles and practices of the construction trades. Includes concrete and plaster trades, electrical, plumbing, carpentry, iron work, sheetmetal, roof and finishing trades in setting foundations, erecting structures, installing mechanical and electrical systems, applying surface material and finishing.
ETD 4525C Engineering Design Graphics I (3) 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 Engineering Design Graphics II (3) 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.

## ETE 4562 Electrical/Electronic Power

 Systems(3)

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 3810 New Venture Formation
Introduction to the main issues facing the would-be businessman. Topics include operational, marketing, and financial needs of the new enterprise. Emphasis on matching student's capabilities with specific project. Open to all F.L.U. students.

ETG 3949 Cooperative Education Technology
Supervised full-time work semester for technology cooperative education students. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and reports required.
(Continued)

# Industrial Systems 

ETG 4811 Technological Entrepreneurship (3) A project oriented course designed specifically for those students or members of the community who wish to start a new business venture. Completion of the course requires an actual business start, spin-off or expansion of an existing one.
ETG 4815 Inventions and Innovations
Introduction to the innovation process. Specifically designed for students or members of the community interested in patenting and invention or developing an idea. Exploration and design are encouraged. Topics include patent application, licenses and business plans.

## ETG 4949 Cooperative Education Technology

Supervised full-time work semester for technology cooperative education students. Limited to students admitted to the Co-op program with consent of advisor. Evaluation and reports required.
ETI 3110 Quality ControI
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, and vendor quality.
ETI 3417C Manufacturing Technology
Laboratory experiences of basic manufacturing, management, personnel, and production practices as they relate to products and processes. Safety procedures.
ETI 3444 Automation
A study of the technology of automation including the economics of management policies for the major industrial changes influencing automation planning. Prerequisite: ETI 4650.

## ETI 3603 Industrial Operations

The industrial structure is studied to see how the various areas and functions are related to each other. The material covered should give the student an overview of the operations of the organization and an understanding of the fundamental principles of management which lead toward effective coordination and control.

## ETI 3645 Production Planning and ControI 1

Introduction to production planning and control concepts including their function within total planning, forecasting, estimating, processing instructions, and manpower allocations. Prerequisite: Statistics and Computer Programming.

## ETI 3646 Production Planning

 and Control IIThe 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.

## ET1 3661 Plant Layout

To effect the coordination of the physical plant facilities to combine the man, materials and machines necessary for operation in the most economical arrangement. Prerequisite: ETI 4660.

ETI 3670 Industrial Financial Decisions
The accounting process and use of financial techniques and data in planning, controlling, and coordinating industrial activities. This course is intended to familiarize the student with accounting concepts, analytical methods, and use of accounting information for purposes of operation and control.

## ETI 3682 Applied Synecology

A systematized approach to the definition and solution of industrial problems resulting from human interactions. This course provides a uniform methodology for resolving one of a manager's most time consuming and frustrating tasks, resolution of people problems. No theory or explanation of human behavior is involved.

## ETI 3700 Safety in Industry

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

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.

## ET1 4452 Maintenance Planning

A study of the maintenance function in the industrial setting, including the planning and implementation of preventative maintenance techniques.
ETI 4470L Industrial Research and Development
Laboratory experiences in formulating, researching, designing, and developing prototypes of constructed and manufactured products and processes. Prerequisite: BCN 3702 or ETI 3417C.

## ETI 4613 Methods Analysis

Analysis and design of improved methods. Procedures to utilize resources optimally by time standardization, work measurement, flow and operation analysis, activity sampling, predetermined motion time systems, work simplification and job enrichment principles.
ETI 4620 Value Analysis
(3)

How to increase the value of products or services
by holding quality while reducing costs, holding costs while increasing quality, or both, with emphasis on material shortages. Specific steps of value analysis used to improve industrial problem solving.

## ETI 4632 Personnel Relations

A study 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 unionmanagement relations. Prerequisite: ETI 468 I.

## ETI 4633 Introduction to

Labor Studies
History and development of the labor movement, with emphasis on union development as a response to industrialization and technological change. Includes the structure and functioning of modern unions, the development of modern technology, the industrial working class, and the impact of the rural-urban shift of labor.

## ETI 4634 Labor Dispute Resolution

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.

## ETI 4635 Administration of Labor Organizations

Administration of labor organizatons; labor policies and practices; legal requirements and financial administration of unions. Prerequisite: ETI 4633.

## ETI 4650 Industrial Information

 SystemsIntroduction to systems concepts. Planning design and implementation of information systems, decision-making with systems, and system organization.

## ETI 4660 Materials Handling

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 division in the industrial organization. Prerequisite: Statistics and Computer Programming.

## ETI 4671 Engineering Economy

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.

# Medical Records Administration 

## ETJ 4681 Industrial Supervision

(3)

Overview of the supervisor's functions, responsibility, and over-all role in management in industry.

## ETI 4683 Human Factors Engineering <br> 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 capabifity, singly and in groups, in interacting with his work environment. Stresses the practical application of human factors principles.ETI 4690 Industrial Sales
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.

## ET1 4691 Women in Industry

Devefopment 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
A continuation of Safety in Industry. An introduction to OSHA regulations on health hazards. Noise, radiation and dust problems in industry. Special hazards with solvents, asbestos, lead, silica, and other chemicals. OSHA compriance procedures. Prerequisite: ETI 3700.

## ETI 4905 Independent Study

(1-3)
Speciafized intensive study in an area of speciaf interest to the student. Consent of instructor and department chairperson required.

## ETI 4930 Special Topics

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.

## ETM 4407L Mechanical Power Systems I

Laboratory experiences in the theory of operation and related maintenance of single and multiple cylinder reciprocating engines. Includes introductory experience with mechanical, fluid, and pneumatic power systems.
ETM 4408 Mechanical Power Systems II
Advanced laboratory experiences with reciprocating engines. Introductory study of turbine, diesel, and rotary engines. Introductory study of aircraft structures and basic aerodynamics. Prerequisite: ETM 4407.

ETM 4823C Materiais of Industry
Laboratory experiences in the theory and practice of characteristics of materials of industry. fncludes test and measurement of stress, strain,
torsion, tensile strength, fatigue, and hardness of metals, wood, fabrics, ceramics and synthetics.

FOS 4411 Food Engineering
Engineering concepts applied to food processing. Material and energy balance. Basic unit operations used in food processing to include fluid flow, mass and heat transfer. Specific applications and problems.

FOS 4421C Food Processing I
Basic principles of food preservation from raw material to storage stability of finished products. Quality assurance and new product development.
FOS 4422C Food Processing II
Rote of additives in food processing. Packaging materials. Principles of distribution and marketing. Plant site location. Field trips and case studies.

HES 4432 Safety Management
Basic concepts of safety management. Fundamentals of loss control, poticies, accountability, measurement and appraisat of the safety function in industry. The technique of operations review. Systems safety. Motivation. Products Safety. Case studies. Prerequisites: BCN 3730 and ETI 4708.
OTH 3123 Technology for Occupational Therapy
The basic properties of woods and metals and the techniques used by occupational therapists in planning a project based on a hypothetical patient's problem.
STA 4605 Applied Systems
Research

Basic industriaf research techniques, operational production problems, matrix applications, inventory control, network analysis. Prerequisites: STA 3161, MAS 3103.

## Medical Records Administration Major

Florence C. Amato, R.R.A., Ph.D., Associate Professor and Director
Juanita Pursel, R.R.A., Assistanl Professor

The major in Medical Records Administration provides the student with management skills necessary for key members of the modern health care team, contributing to serving the health care needs of individuats and of the community. This is accomptished through development of patient information systems which enable patients to be cared for adequately, medicine to be taught, research to be conducted, epidemics to be controlled, drugs to be tested, and health care statistics to be compared. Specific skilts incfude those needed for acquisition of

complete medical data on each patient cared for by the medical team, for planning of systems for record retention and retrieval, and for management of those systems by the departmental staff.

The Program was approved by the AMA AMRA in April, 1979, thus making graduates from the program eligible to take the National Registry to become Registered Record Administrators.
DEGREE: Bachelor of Science, in Medical Records Administration
Required Courses: Anatomy and Physiology including Laboratory, Statistics and Microbiology.
UPPER DIVISION PROGRAM:
Semester Hours
Major Required Courses:
MRE 3001 Medical Terminology 3
MRE 3002C Medical Word
MRE 3110C Medical Records

HSC 3152 Administration 1
Medicai Records
MRE 3401 Fundamentals of
MRE 3800 Directed Practice I 1
MRE 3202C Coding and Indexing
MRE 3205C Medical Records Administration 11
MRE 3402 Fundamentals of Medical Science 11
MRE 4403
MRE 3810 Fundamentals of Medical Science fff

MRE 4400
MRE 4410
MRE 4830
Directed Practice 11
Medical Record Consulting

Directed Practice IIf
MRE 4312C Medical Records
MRE 4344 Medical Record
Administration V

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1

# Medical Records Administration 

MRE 4835
Support Courses:
HCA 3501, 4203, 4710; COP 3172; CIS 3300; MAN 4301.

Directed Practice IV 1
Problems in Medical Records Administration3

Internship Medical Records Management

## Course Descriptions

MRE 3001 Medical Terminology
Provides the student with basic medical language skills, including pronunciation, spelling, and definitions necessary for communication in the medical world.

## MRE 3002C Medical Word Processing

Laboratory to accompany, HSC 3531. Comprehension in transcription of medical records, including history and physical reports, x -ray, operative, and pathology reports.

## MRE 3110C Medical Records

 Administration IIntroduces 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. Laboratory accompanying.
HSC 3152 Legal Aspects of Medical Records (3) Consideration of Medical Record as legal document to include general introduction to law, release of information and legal actions.
MRE 3202C Coding and Indexing

## Procedures

$(3,1)(4)$
Special registries; nomenclatures, coding and indexing; ICD - $9-\mathrm{CM}$; Application of indexes to research. Laboratory accompanying.
MRE 3205C Medical Records Administration II
$(3,1)(4)$
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. Laboratory accompanying.

MRE 3401 Fundamentals of Medical Science I
A systematic review of organ systems, arranged by medical specialties. Typical chart data will be included, with representative information characteristic of history and physical examina. tion, laboratory, x-ray data, and nursing notes. Specialties covered are internal medicine, pediatrics, obstetrics and gynecology.

## MRE 3402 Fundamentals of Medical

 Science IIA systematic review of organ systems, arranged by medical specialties. Typical chart data will be included, with representative information characteristics of history and physical examination, laboratory, x-ray data, and nursing notes. Specialties covered are general surgery, neurosurgery, neurology, and orthopedics.
MRE 4403 Fundamentals of Medical Science II
A systematic review of organ systems, arranged by medical specialties. Typical chart data will be included, with representative information characteristic of history and physical examination, laboratory, x-ray data, and nursing notes. Specialties covered are endocrinology, otorhinolaryngology, opthalmology, oncology, genetics and anesthesiology.
MRE 3800 Directed Practice I
Orientation of the student to the hospital medical records department and adjunct diagnostic or therapeutic units, including the outpatient department, emergency room, admitting office, x -ray, pharmacy, physical therapy, laboratory, and pathology department.
MRE 3810 Directed Practice II
Orientation of the student to medical records department functions. Rotation of the student through technical functions of the department, following the flow of the patient's record after discharge. Includes the discharge procedure; analysis, coding and indexing systems; statistical reporting; correspondence; control of the incomplete medical record; and processing of the completed record.
MRE 4400 Medical Record Consulting (3) Standards and procedures for long term, ambulatory care, home health, mental retardation, mental health, and other health care records.
MRE 4410 Medical Records
Administration III
Medical care evaluation, including organizational structures, methods and procedures in compliance with the Joint Commission on Accreditation of Hospitals, AOA, Medicare and PSRO.
MRE 4304 Problems in Medical Records Administration
Through illustrative case reports, group discussions, role playing, oral reports, lectures, buzz sessions, and review of the literature, students explore effective methods for identifying and arriving at satisfactory solutions to specific types of problems they may expect to encounter in the administration of medical record services.
MRE 4312C Medical Records
Administration IV
$(3,1)(4)$
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, actuating and controlling. Laboratory accompanying.
MRE 4344 Medical Record
Administration V
Physical planning of Department, purchase specifications, proposal writing and cost justification. Prerequisite: MRE 4312C.
MRE 4830 Directed Practice III
This directed practice centers on utilization review procedures for hospitals and M.E.C. studies.

## MRE 4831 Directed Practice IV

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

Management in a medical records department for five weeks, under the supervision of a Registered Record Administrator.
MRE 4905 Directed Independent Study (1-3) Individual conferences, assigned readings and reports on investigations in Medical Records.

## MRE 4932 Special Topics

Designed to address topics not otherwise offered in the curriculum but specific to Medical Record Administration. Topics to be announced yearly.
MRE 3949 Cooperative Education in Medical Record Administration Supervised work in Medical Records taking part in the University Cooperative Education Program. Prerequisite: Admission to Co-op Education.
MRE 4949 Cooperative Education in Medical Record Administration
Supervised work in Medical Records taking part in the University Cooperative Education Program. Prerequisite: MRE 3949.

## Medical Technology

## Medical Technology

Janet L. Zins, Associate Professor and Chairperson
Sylvia L. Smith, Associate Professor
Barbara V. Anderson, Assistant 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 Board of Registry as a Medical Technologist, MT (ASCP); by the National Certification Agency for Medical Laboratory Personnel as a Clinical Laboratory Scientist, CLS (NCA); and for licensure as a Medical Technologist by the State of Florida.
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 a minimum of 60 semester hours ( 90 quarter 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) earned a minimum cumulative grade point average of 2.0 (on a scale of 4.0) in required science courses, (5) completed the following preparatory courses: two semesters of general biology with laboratory, two to three semesters of general chemistry with laboratory, two semesters of organic chemistry with laboratory, one semester of quantitative analysis chemistry with laboratory, one semester of general microbiology with laboratory, two semesters of pre-calculus mathematics (algebra and trigonometry). (Survey or introductory courses in science and mathematics are not acceptable.)

## UPPER DIVISION PROGRAM:

The university-integrated " $2+2$ " program is approved for thirty students per year. Students are usually admitted to the program in fall semester, but may be admitted on an individual basis in any semester providing pre-requisite and co-requisite courses have been completed. It is recommended that applications for fall semester be received by April 15 but applications will be processed throughout summer semester. An interview may be required. The medical technology professional courses and hospital clinical practice are open only to majors in the program (or by permission of instructor). En-
trance to clinical practice depends upon satisfactory evaluation of the student's record by the faculty.

Alternate laboratory experience or clinical practice may be arranged on an individual basis for (1) graduates of NAACLS-approved MLT programs; (2) students certified as MLT (ASCP); (3) students who have had experience in a clinical laboratory; and, (4) students who have had military laboratory training.

Medical technology community service courses are taught for the continuing education of community clinical laboratory personnel.

Semester Hours
Required Courses:

## Junior Year

Fall Semester
MLS 3030C Introduction to Medical
MLS 3065C $\begin{array}{ll}\text { Technology } \\ \text { Clinical }\end{array}$
Instrumentation 3
MLS $4405 \quad$ Clinical Microbiology 2
MLS 4405L Clinical Microbiology
MLS $4120 \quad$ Clinical Microbiology
$\begin{array}{lll} & \text { Correlations } & 1\end{array}$
BCH 3033 Introduction to
Biochemistry/
Biomolecules
4

14
Spring Semester

| MLS 4625 | Clinical Chemistry <br> Methods | 3 |
| :--- | :--- | :--- |

MLS 4625L Clinical Chemistry
MLS 4140 Laboratory
MLS $4140 \quad$ Clinical Chemistry Correlations
MLS 4505C Clinical Immunology 3
MLS 4334C Clinical Coagulation 2
PCB 3233 Immunology 3
18
Summer Semester



| Fall Semester <br> MLS 4535 | lmmunohematology <br> MLS 4535L | 3 |
| :---: | :--- | :---: |
| MLS 4130 | lmmunohematology <br> Laboratory <br> Immunohematology | 3 |
| MLS 4700 | Correlations <br> Laboratory | 1 |
|  | Management <br> MLS 4755C | 1 |
| Laboratory Statistics |  |  |
| MLS 4032C | \& Quality Control <br> Orientation to Clinical | 2 |
| MLS 4934 | Rotation <br> Seminar I | 1 |
|  |  | 1 |
| 12 |  |  |

Spring Semester
MLS 4820L Clinical Practice / Chemistry
4
MLS 4821L Clinical Practice/ Microbiology
MLS 4822L Clinical Pracrice / Hematology 4
MLS 4823L Clinical Practice/ Blood Bank \& Immunology 4
MLS 4935 Seminar Il 1

## Course Descriptions

Definition of Prefixes
MLS - Medical Laboratory Science
MLS 3030 C Introduction to
Medical Technology
Introduction to the profession of medical technology, history, ethics, employment opportunities. Instruction in blood collection techniques. Certification and licensure requirements.

## MLS 3240 C Medical Mycology

Study of the essential procedures and criteria in the identification of pathogenic fungi. Recognition of fungal contaminants commonly encountered in clinical specimens. Actinomycetes. Antimycotic agents. Mycoserology. Stains, reagents and media.

# Medical Technology 

## MLS 3430 Medical Parasitology

Classification, morphology and life cycles of medically significant parasites. Emphasis is on microscopic identification, specimen preservation, and infection control.

## MLS 3430L Medical Parasitology Laboratory

Laboratory to accompany MLS 3430.
MLS 3605C Clinical Instrumentation
Fundamentals of clinical laboratory instrumentation including basics of electricity and electronics, preventive maintenance and quality control procedures will be emphasized.

## MLS 3700 Management Procedures for Laboratory Employees

Job descriptions, salary schedules, equipment and reagent purchasing, quality assurance programs, work-load recording methods. Individualized projects adapted to meet the needs of facility where student is employed. Prerequisite: one year of clinical laboratory experience.
MLS 3750 Laboratory Quality Control, Safety, and Instrument Maintenance
Course designed for the working technologist who wishes to protect himself, his co-workers, and others in his environment from the hazards inherent in laboratory operations, and who wishes to present better evidence of compliance with the various inspection and accreditation organizations which now inspect laboratories. Prerequisite: one year of clinical laboratory experience.
MLS 4032C Orientation to Clinical Rotation (1) Introduction to hospital environment and patient care. Medical ethics. Clinical facilities tour. Required laboratory tests for entrance into clinical rotation will be completed.

## MLS 4110 Hematology Correlations

Present diseases associated with abnormal findings in laboratory tests performed in hematology, coagulation, urinalysis, and clinical microscopy. Assist in correlating two or more laboratory procedures which might reinforce the likelihood of specific diseases being identified by laboratory methods.
MLS 4120 Microbiology Correlation
Medical aspects of infections caused by bacterial, viral, rickettsial, and mycotic pathogens. In vivo effect of antimicrobial therapy. Hospital infection control.
MLS 4130 Immunohematology Correlations (1) Laboratory identification of venereal diseases. Blood Bank regulations in protection of donor and recipient. Blood component therapy selection for specific conditions. Problems of the patient immunized through transfusion therapy.
MLS 4140C Clinical Chemistry Correlations (1) Biochemical tests used in diagnosis and treatment of metabolic disorders. Carbohydrate and
protein metabolism, acid-base balance, enzymes, testing for organ function.
MLS 4150 Selected Topics in Clinical Correlations
Current topics in Clinical Correlations of particular significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4160L Individualized Study in Clinical Correlations
(VAR) Introduction to problems in Clinical Correlations requiring research or independent study. Special work, lecture and/or laboratory as determined by advisor in accord with student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.
MLS 4190 Diagnostic Histology
Control slides; special stains; preparation of tissues for EM; identification of significant tissue features for preparation of surgical slides. For experienced histotechnologists.

## MLS 4306 Clinical Hematology

A basic course in the origin of erythrocytes and white blood cells, their morphology and function. The study of urine, its formation and microscopic morphology.
MLS 4306L Clinical Hematology Laboratory (3) Laboratory to accompany MLS 4306, dealing with manual and automated procedures for determining complete blood and platelet counts. Urinalysis and clinical microscopy.

## MLS 4307L Directed Study in Hematology

(VAR)
Selected laboratory techniques to accompany MLS - 4306. For M.L.T.'s.
MLS 4320 C Advanced Hematology
Study of abnormal blood cells present in peripheral smear and bone marrow. Special tests performed in hematology and coagulation. Hematology automation. Lectures and laboratory.
MLS 4325 Selected Topics in Hematology (1) Current topics in Hematology of clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

## MLS 4327L Individualized Study in Hematology

(VAR) Introduction to problems in Hematology requiring research or independent study. Special work, lecture and/or laboratory as determined by advisor in accord with student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.

## MLS 4334C Clinical Coagulation

A basic course in the study of coagulation factors, platelets, the fibrinolytic system, platelet
aggregation and the laboratory exercises that complement the lectures.

## MLS 4405 Clinical Microbiology

Diagnostic microbiological procedures. Study of clinically significant organisms. Isolation media and biochemical tests for identification. Recognition of normal flora. Anaerobic procedures. Viruses, Fungi, Rickettsiae. Serological typing. Antibiotic sensitivity tests. Prerequisite: General Microbiology.

## MLS 4405L Clinical Microbiology

 LaboratoryLaboratory to accompany MLS 4405. Isolation and identification of normal and pathogenic flora from genuine and simulated clinical specimens. Identification of clinically significant fungi.
MLS 4406L Directed Study in Clinical Microbiology
(VAR)
Selected laboratory techniques to accompany MLS - 4405. For M.L.T.'s.
MLS 4460 C Advanced Microbiology
Lectures and laboratory. Identification of rare pathogens. Virology - tissue culture techniques. Mode of action and bacterial resistance to antibiotics. Fluorescent antibody techniques. Immunodiffusion. Immunoelectrophoresis. Seniors only.
MLS 4465 Selected Topics in Microbiology (1) Current topics in Microbiology of clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.
MLS 4467L Individualized Study in Clinical Microbiology
(VAR) Introduction to problem in Clinical Microbiology requiring research or independent study. Special work, lecture and/or laboratory as determined by advisor in accord with student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.
MLS 4505 C Clinical Immunology
Study of immunological procedures employed by the clinical laboratory for the diagnosis of diseases such as rheumatoid arthritis, infectious mononucleosis, syphilis, etc.
MLS 4530 C Advanced Immunohematology (1) In depth study of Transfusion Therapy, the use and preparation of blood components, and special problems in blood banking. Lectures and laboratory. Seniors only.
MLS 4535 Immunohematology
Fundamentals of Blood Banking including blood grouping, compatibility testing, antibody identification, blood group systems, hemolytic

# Occupational Therapy 


#### Abstract

disease of the newborn and blood components. Prerequisites: Immunology and Clinical Immunology.


MLS 4535L Immunohematology Laboratory (3) Laboratory to accompany MLS-4535.

## MLS 4536L Directed Study in

 Immunohematology(VAR)
Selected laboratory techniques to accompany MLS-4535. For M.L.T.'s.

MLS 4551L Individualized Study in Immunohematology
(VAR) Introduction to problems in Blood Banking requiring research or independent study. Special work, lecture and/or laboratory as determined by advisor in accord with student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.
MLS 4555 Selected Topics in Immunohematology
Current topics in Blood Banking of clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the Instructor.

## MLS 4625 Clinical Chemistry Methods

Medical laboratory procedures for analysis of carbohydrates, proteins, lipids, enzymes, electrolytes. Renal and liver function profiles. Basic instrumentation. Automated analysis with emphasis on continuous flow. Quality control. Prerequisites: Clinical Instrumentation and Biochemistry.
MLS 4625L Clinical Chemistry Laboratory
Laboratory to accompany MLS 4625.
MLS 4626L Directed Study in Clinical Chemistry
Selected laboratory techniques to accompany MLS-4625. For M.L.T.'s.

MLS 4630C Advanced Chemistry
Lecture and Laboratory. Topics to be covered include analysis of thyroid hormones, estrogens, adrenal hormones and metabolites, radiommunoassay and radioisotope measurement, amniocentesis, toxicology, multichannel analyzers, and gas chromatography. Seniors only.

## MLS 4635 Selected Topics in Clinical Chemistry

Current topics in Clinical Chemistry of particular clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

## MLS 4637L Individualized Study in Clinical Chemistry

(VAR)
Introduction to problems in Clinical Chemistry requiring research or independent study. Special work, laboratory and/or lecture as determined by advisor in accord with the student's individual interest. Review of literature. Participa-
tion in seminars. Prerequisite: Permission of instructor.

MLS 4700 Laboratory Management
Personnel handling, laboratory records, equipment and reagent purchasing, laboratory computerization, quality assurance programs, workload recording programs, scheduling and methods of laboratory self-evaluation. Seniors only.

## MLS 4755C Laboratory Statistics and Quality Control

Lecture topics to be covered include basic laboratory statistics, linear regression and correlation analysis, quality control charting techniques, new method evaluation, problem solving using computer programs.

MLS 4820L Clinical Practice/Chemistry (4) Practical experience in a hospital chemistry laboratory. All Medical Technology courses must be completed before students will be permitted to register for clinical practice.
MLS 4821L Clinical Practice/Microbiology (4) Practical experience in a hospital microbiology laboratory.

MLS 4822L Clinical Practice/Hematology (4) Practical experience in a hospital hematology laboratory.

MLS 4823L Clinical Practice/Blood Bank and Immunology
Practical experience in a hospital blood bank and immunology laboratory.
MLS 4934, 4935 Seminar I, II
Two semesters are required. Preparation and presentation of literature review and individualized projects. Instructional methods. Supervisory techniques. Seniors only.

## Occupational Therapy

Reba L. Anderson, Associate Professor and Chairperson

## Karen Bergman, Assistant Professor <br> Suze Dudley, Assistant Professor <br> Shirley Starling, Assistant Professor

Occupational therapy is a health profession concerned with promoting the quality of life of individuals. Therapeutic techniques are directed toward restoration, reinforcement and enhancement of participation in life. Occupational therapy may be indicated for persons whose life has been interrupted by disease or injury, or those who suffer from developmental delays or problems associated with aging.

The occupational therapist assesses the client's abilities to carry out tasks and activities necessary for productive living. Working collaboratively with the client and considering his personal goals, lifestyle and environment, the

therapist develops an intervention program designed to help restore the greatest possible functional capacity. During the treatment or rehabilitation process, the client actively engages in a directed program of purposeful, meaningful activities designed to increase his level of functioning. The occupational therapist works collaboratively with the client, other health professionals on the health care team, and community agency personnel. Occupational therapists serve a wide variety of individuals in all age ranges and work in settings such as community agencies, sheltered workshops, hospitals, schools, extended care facilities and rehabilitation centers. There is an increasing demand for occupational therapists and excellent opportunities exist for career advancement.
If you are interested in working with clients who have special problems, assisting them to reach their maximum potential, then perhaps occupational therapy would be the profession for you. Qualities that are necessary to be a successful therapist include the ability to work with others, look at the totality of human performance, think creatively, problem solve, and direct the actions of others. In order to be admitted to the program in occupational therapy, applicants must meet the requirements for admission to the University, have a cumulative G.P.A. of 2.5 or better, and have completed required prerequisites and 60 semester hours of acceptable academic credit. Applicants must apply both to the University and to the Occupational Therapy Department. Enrollment is limited and one class is selected each academic year to begin fall semester.
LOCATION: Tamiami Campus only
DEGREE: Bachelor of Science in Occupational Therapy
LOWER DIVISION PREPARATION:
Required Courses: Biological and/or physical sciences -6 semester hours to include 3 semester hours of biology with lab. Recommended courses: zoology with lab, anatomy and physiology. Social Behavioral Sciences - 12 semester hours to include: psychology - 6 semester hours. Recommended courses: Theories of Personality, Dynamics of Behavior. Human Growth and Development - 3 semester hours. Sociology / Anthropology - 3 semester hours. Statistics -3 semester hours.

## Occupational Therapy

| UPPER DIVISION PROGRAM: |  |
| :---: | :---: |
| Required Courses: | S: Semester Hours |
|  | Junior Year |
| Foll Semester Pratal |  |
|  |  |
|  | Development |
| OTH 3012L | Therapeutic |
|  | Communication |
| OTH 3160C | Adaptive Living Skills |
| ETI 3404C | Tools and Materials |
| PCB 3702 | Intermediate Human |
|  | Physiology |
| ZOO 3731 | Human Anatomy |
| ZOO 3731L | Human Anatomy Lab |
|  | 16 |
| Spring Semester |  |
|  |  |
| OTH 3327 | Dysfunction for |
|  | Occupational |
|  | Therapists |
| OTH 3328 | Foundations of |
|  | Psychiatric Occupational |
|  | Therapy Theory |
| OTH 3413 | Applied Kinesiology |
| OTH 3520 | Developmental |
|  | Theory I |
| OTH 381L | Psychiatric Skills Lab |
|  | for Occupational |
|  | Therapists 1 |
| OTH 3815 | Field Work Experience- |
|  | Level I |
| ZOO 4743 | Neuroscience |
| ZOO 4743L | Neuroscience Lab |
|  | 16 |

Summer Semester
OTH 3815 Field Work Experience
$\begin{array}{ll} & \text { Level I } \\ \text { OTH } 3900 & \text { Medical Terminology }\end{array}$


4

|  | Senior Year |
| :---: | :---: |
| Fall Semester OTH 4320 |  |
|  | Psychiatric Occupational Therany Theory and |
|  | Evalualion 2 |
| OTH 4321L | Psychiatric Occupational |
|  | Therapy Treatment I 3 |
| OTH 4411 | Patholosy and |
|  | Medical-Surgical |
|  | Disurders |
| OTH 4421 | Biome chanics in |
|  | Rehalilitation |
| OTH 4422 | Evalualion and |
|  | Treatment nf Central |
|  | Nervous System |
|  | Dysfunction |

Spring Semester
OTH 4112
Therapeutic Media

| OTH 4170 | Therapeutic |  |
| :---: | :---: | :---: |
|  | Techniques in |  |
|  | Physical Disahilities | 2 |
| OT11 4210 | Developmental |  |
|  | Theory II | 2 |
| OTH 4342 | Psychiatric |  |
|  | Occupational Therapy |  |
|  | Treatment II | 3 |
| OTH 4761 | Professional Issues in |  |
|  | Occupational Therapy | 3 |
| Elective | In Clinical Specialization | 3 | 16

Summer Semester (May, June, July) OTH 4850
or
OTH 4851
Field Work
Experience
Fall Semester (August, September, October)
OTH 4850 or OTH 4851

Field Work Experience

12

## Course Descriptions

## Definition of Prefixes

ETI - Engineering Technology: Industrial; OTH - Occupational Therapy; PCB Biological Sciences; ZOO - Biological Sciences.

OT11 3000 Professional Development
Ilistory and theory of the discipline of occupational therapy, includes an introduction to clinical and community practice environments.
OTH 3008 Fundamentals of Human
Performance

An introduction to the human body, its slructure and function with an emphasis on visual assessment and palpation to evaluate physical dysfunction.
OTH 3012L Therapeutic Communication
Major focus of this course is on several modes of facilitating communication and opportunities tor self knowledge. Interpersonal Process Recall format is followed.
OTH 3160C Adaptive Living Skills
Evaluation and adaptation of environments within which typical occupational therapy clients inferact: specific limiting factors of general disabilities; variety of techniques and aides which compensate or adapt for loss.
OTH 3327 Issues in Psychosocial Dysfunction
for Occupational Therapists (3)
The analysis and identilication of patterns of behavior and functional performance pertinent lo oscupational therapy practice in psychiatry.

OTH 3328 Foundations of Psychiatric
Occupational Therapy Theory (2)
An overview of past and current theories influencing the practice of occupational therapy in psychiatry.
OTH 3413 Applied Kinesiology
A course providing learning experiences to develop skills in palpation, goniometry, manual muscle testing and motion analysis of normal subjects.
OTH 3520 Developmental Theory I
Occupational therapy evaluation, treatment and management of developmental disabilities from birth through adolescence.

## OTH 3811L Psychiatric Skills Lab for Occupational Therapy 1

An experiential course directed toward integration and application of treatment modalities and principles for occupational therapists in psychiatry.

## OTH 3815 Field Work Experience

 Level IPre-clinical experience in an approved training center.
OTH 3900 Medical Terminology (1)
A self-instructional program of medical terminology. CR/NC.

## OTH 4112 Therapeutic Media

The study of selected major crafts as therapeutic modalities.
OTH 4170 Therapeutic Techniques in Physical Disabilities
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.
OTH 4210 Developmental Theory 11
The application of developmental theory to the occupational therapists' evaluation, treatment and management of adults and the aged.
OTH 4320 Psychiatric Occupational Therapy
Theory and Evaluation
An in-depth study of occupational therapy theorists and evaluations pertinent to the practice of occupational therapists in psychiatry.
OTH 4321L Psychiatric Occupational Therapy Treatment 1
A study of group process and the occupational therapist's use of groups and purposeful activity in psychiatric practice.

## Physical Therapy

## OTH 4342 Psychiatric Occupational Therapy Treatment II

Occupational therapy treatment approaches for clients exhibiting maladaptive behavior patterns.
OTH 4411 Pathology and Medical-Surgical Disorders
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 4421 Biomechanics in Rehabilitation (3) The analysis and application of biological and physical principles to the evaluation and treatment of patients with physical disabilities.
OTH 4422 Evaluation and Treatment of Central Nervous System Dysfunction
(4)

Occupational Therapy evaluation and treatment of central nervous system dysfunction for clients of all ages.
OTH 4761 Professional Issues in Occupational Therapy
(3)

Professional issues facing occupational therapists including the role of research, organizational systems, and advocacy.

## OTH 4813L Psychiatric Skills Lab for Occupational Therapy II <br> Continuation of OTH 381 IL .

OTH 4850L Field Work Experience
Three month internship in a clinical setting.
OTH 4851L Field Work Experience
(12)

Three month internship in a clinical setting.
OTH 4852 Field Work Experience
(VAR)
Internship in a specialized treatment area.
OTH 4904 Independent Study
(VAR)
To be arranged with instructor according to the student's specialty.

OTH 5329 Current Trends in Mental Health as Related to Occupational Therapy Practice
(VAR) (1-3)
Advanced study of occupational therapy practice in mental health.

OTH 5400C Analysis of Therapeutic Procedures in Physical Dysfunction
A lecture/lab course designed to introduce advanced students to theory based assessment, problem identification and treatment for the physically disabled adult.

OTH 5600 The Study of Gerontology as Related to Occupational Therapy Practice
A study of the impact of advances in the field of gerontology, and current legislation affecting the profession.

## OTH 5760 Current Research in Occupational Therapy

Review of statistical concepts and research procedures in the clinical setting, with in-depth study of the current status of research in occupational therapy.
OTH 5905 Independent Study
(VAR)

## Physical Therapy

Burton J. Dunevitz, Associate Professor and Chairperson<br>Elizabeth O. Cormack, Assistant Professor Awilda R. Haskins, Assistant Professor Terry W. Higgins, Assistant Professor

The program received full live year accreditation in 1978 from the American Physical Therapy Association. The emphasis is placed upon a student-centered approach whereby individuals progress through a variety of learning experiences designed to develop their evaluative and applied therapeutic skills in the treatment of musculoskeletal, neurologic, cardiovascular and pulmonary disorders.

The students receive experiential and didactic instruction from clinical physical therapists, physicians, and other medical professionals. Clinical education is conducted in accredited centers throughout the United States.

Graduates of the program are prepared to assume employment in general hospitals, rehabilitation centers, private clinics, home health care facilities, school systems, sports medicine units, and in the self-employed sector. Most graduates remain in South Florida after completion of the course of study.

Students who apply for admission to the program must meet the general education requirements of the University. Acceptance must be determined both by the University and the Physical Therapy Department. Enrollment is limited and admission is selective. Deadline for receiving applications is December 31. Classes are selected in April to commence coursework in August.
CAMPUS LOCATION: Tamiami Campus only DEGREE AWARDED: Bachetor of Science in Physicat Therapy

## LOWER DIVISION PREPARATION:

Required Courses: at least 60 semester hours ( 90 quarter bours) of an acceptable level of college credit work; at least one academic year of science coursework (including laboratory) in each of the areas of biology/zoology, chemistry, and physics as well as three courses in psychology (child development is recommended); a minimal grade point average of 2.85 in the above-Jisted courses; a minimal overall grade point average of 2.75 by December 31 .


UPPER DIVISION PROGRAM:
Definition of Prefixes:
PCB and ZOO - Biological Sciences; PHT Physical Therapy

Semester Hours
All Required Courses:
Junior Year
Fall Semester
ZOO 3703 Human Physiology I
3
ZOO 3703L Human Physiology Lab I
ZOO 3733 Gross Anatomy I
ZOO 3733L Gross Anatomy Lab 1
PHT 3124 Clinical Kinesiology 5
PHT 3I24L Clinical Kinesiology
Lab 1
PHT 3201 Basic Physical Therapy
PHT 3001 Introduction to Physical Therapy 1

18
Spring Semester
ZOO 3704 Human Physiology II 3
ZOO 3704L Human Physiology
ZOO 3734 Gross Anatomy II 3
ZOO 3734L Gross Anatomy Lab II 1
PHT 3í33C Musculoskeletal
PHT 3202 Evaluation 4
HF Basic Physical Therapy
PHT 3400 Emotional Aspects of
$\begin{array}{ll}\text { PHT } 3400 & \begin{array}{l}\text { Emotional Aspects of } \\ \\ \\ \text { Physical Disability }\end{array} 2\end{array}$
4

18
Summer Semester


## Physical Therapy

|  | Senior Year |  |
| :---: | :---: | :---: |
| Fall Semester |  |  |
| ZOO 4743 | Neuroscience | 3 |
| ZOO 4743L | Neuroscience Lab | 1 |
| PHT 3300 | Physical Therapy \& |  |
|  | Human Disorders | 3 |
| PHT 4313 | Neurology | 4 |
| PHT 4141 | Evaluation of the |  |
|  | Developing Child | 3 |
| PHT 4233C | Neurodevelopmental |  |
|  | Techniques | 3 |
|  |  | 17 |
| Spring Semester |  |  |
| PHT 3232C | Prosthetics and |  |
|  | Orthotics | 2 |
| PHT 4932 | Research Methods |  |
|  | and Design | 2 |
| PHT 4823 | Senior Clinical |  |
|  | Clerkship | 2 |
| PHT 4234C | Neurophysiologic |  |
|  | Techniques | 3 |
| PHT 4510 | Organization and |  |
|  | Administration | 4 |
| PHT 3231 | Rehabilitation | 3 |
| PHT 4235C | Electrodiagnosis | 2 |

Summer
PHT 4826
Senior Clinical
Internship
15

## Course Descriptions

PHT 3001 Introduction to Physical Therapy
A survey of the profession vis-a-vis other health professions; ethics and basic medical communication.
PHT 3122 Clinical Kinesiology
A study of the anatomical, physiological and biomechanical principles as related to the analysis of motion of the normal human body, with direct correlation to the clinical situation.
PHT 3122L Clinical Kinesiology Lab
Laboratory experiences in identifying and palpating the various components of the human musculoskeletal system while the body is at rest and in motion.
PHT 3133C Musculoskeletal Evaluation
Laboratory instruction in the measurement and recording of the physical status of the musculoskeletal system, using manual palpation, joint movement, muscle strength testing, goniometry and x -ray. Abnormal gait and posture evaluation are also included.
PHT 3201 Basic Physical Therapy Techniques I
A study of the scientific rationale for and performance of the basic techniques of physical
therapy including vital signs measurements, massage and hydrotherapy.

## PHT 3202 Basic Physical Therapy

 Techniques IIA lecture/laboratory presentation of the underlying physiological reationale, principles of physics and manual performance necessary for the application of the electrophysiologically oriented modalities.
PHT 3231 Rehabilitation
Explores functional evaluation, goal setting and treatment planning for severely debilitated patients with medical, cardiac, pulmonary, thermal and spinal-cord-related disabilities. Other health disciplines participate in some presentations.
PHT 3232C Prosthetics and Orthotics
A study of the modern appliances and their appropriate utilization including on-site visits to a prosthetic lab, patient clinics, and patient treatment areas.
PHT 3300 Physical Therapy and Human Disorders
Study of systemic and organ-specific disease and the related medical terminology as they relate to the practice of physical therapy; explores the current literature in selected disease topics.
PHT 3310 Orthopedics
Multimedia lectures and patient case studies presented on the evaluation and managment (surgical and non-surgical) of the orthopedic patient, correlated with laboratory practice in evaluative and treatment skills.

PHT 3400 Emotional Aspects of Physical Disability
Examines attitudes of physical therapists toward disability, emotional reactions of patients to their own disability, and emotional disorders commonly seen in patients treated by physical therapists.

## PHT 3804 Clinical Internship

Supervised full-time clinical experience, designed to offer the student experience in patient care, particularly musculoskeletal evaluation, application of basic physical techniques, and orthopedic planning and implementation.
PHT 4141 Evaluation of the Developing Child
A study of the neuromuscular development characteristics of the child; includes evaluation methods; a prerequisite to PHT 4235C, Neurophysiologic Techniques.

PHT 4233C Neurodevelopmental Techniques
A study of the application of various exercise techniques and systems to the treatment of children with neurophysiologic deficits.

## PHT 4234C Neurophysiologic Techniques

A study of the application of the exercise techniques of Bobath, Rood, Brunnstrom, and Knott and Voss to the treatment of adults with neurophysiologic deficits.
PHT 4235C Electrodiagnosis
A study of electromyography and low frequency testing techniques for neuromuscular disorders.
PHT 4313 Neurology
Emphasizes evaluation differential diagnosis, goal setting, and treatment planning for patients with neurologic disability. Presented by neurologists, and by physical therapists who provide clinical experience in neurologic evaluation.

## PHT 4510 Organization and

Administration
A study in the management of physical therapy delivery systems and current health trends affecting the profession.
PHT 4823 Senior Clinical Clerkship
Extension of PHT 3804, with emphasis on treatment planning and implementation of prosthetics, orthotics, rehabilitation, electrodiagnosis, and neurology.
PHT 4826 Senior Clinical
Internship

Supervised full-time clinical experience, designed to afford the student the opportunity to practice total patient care, as well as administration and supervision in physical therapy.

## PHT 4905 Independent Study

(1-6 [various])
The student will select a particular aspect of physical therapy or closely related subject for in-depth independent study with a faculty preceptor.
PHT 4932 Research Methods and Design
Introduction to research methods, data collection, data anlysis, and scholarly writing concerning topics relevant to physical therapy; students complete a research paper and present it to local health professionals.

# School of Technology 

## Drinking Water Research Center

Director, Francis M. Middleton
The only facility of its kind in the State of Florida, the Drinking Water Research Center (DWRC) was created by the Florida State Legislature in 1977. The Center is primarily devoted to developing scientific information and essential technologies that can be used to provide quality drinking water to Florida residents and to residents in the United States, and global neighbors. The Center receives financial support from the State of Florida and from research grants. The Center does not perform routine tests of water for individuals. Administratively, the Center is a part of the Florida International University School of Technology.

Through programs of research, education, community, service, and public information, the Center provides a comprehensive approach toward solving the dilemmas confronting the world's largest and most essential natural resource - water. Although enormous quantities of water exist, the right amount of good quality water is not to be found in the right places at all times. Without an adequate supply and quality of water, a community's physical and economic health will surely suffer.

The Center staff does not conduct academic classes on a regular basis. Qualified students from the School of Technology or other schools often have an opportunity to work as research assistants in the Center's laboratories or carry out special projects. Cooperation and interchange with other departments in the School of Technology are maintained.

## Staff

William J. Cooper, M.S. (Pennsylvania State University), Associate Research Scholar/Scientist.
Francis M. Middleton, M.P.H. (University of Michigan), Direclor.
Frances Parsons, Ph.D.(University of Miami), Associate Research Scholar/Scientist.
Ramona G. Rice, Ph.D. (University of Arkansas), Assistant Research Scholar/Scientist.
Paul R. Wood, B.S. (University of Notre Dame), Associate Research Scholar/Scientist.

## School of Technology

Dean<br>Associate Dean<br>Chairpersons:

Lambert Tall Katharine R. Curry

Civil and Environmental
Engineering Technology LeRoy Thompson Communication Technology David LeRoy Construction

Iraj Majzub Dietetics and Nutrition Nancy Wellman

Electrical and Mechanical Engineering Technology Home Economics<br>Industrial Systems<br>Medical Technology Occupational Therapy Physical Therapy<br>Program Direclor:<br>Medical Record<br>Administration<br>James R. Story Betty Morrow Donald Wallace Janet L. Zins Reba Anderson Burton Dunevitz<br>Florence Amato

## Faculty

Alcorta, Sergio J., Ph.D., P.E., (University of Miami), Associate Professor, Engineering Technology
Amato, Florence C., Ph.D., R.R.A., (St. Louis University), Program Director and Associate Professor, Medical Records Administration
Anderson, Barbara V., B.S., M.T. (ASCP), S.B.B.,(Ohio Slate University), Assistant Professor, Medical Technology
Anderson, Reba L., M.A., O.T.R., (University of Florida), Chairperson and Associate Professor, Occupational Therapy
Aurioles, Gabriel, Ed.D., (Florida Atlantic University), Associate Professor, Industrial Systems
Banks, Andrew, M.A., (Goddard College), Assistant Director and Instructor, Center for Labor Research Studies
Bergman, Karen, M.S., O.T.R., (Baylor University), Assistant Professor, Occupational Therapy
Canaves, Jaime, M.A., R.A., (University of Florida), Assistant Professor, Construction Cereijo, Manuel R., M.S., P.E.., (Georgia Institute of Technology), Associate Professor, Electrical and Mechanical Engineering Technology
Chaudhari, Bhaskar S., Ph.D., P.E. (University of Pennsylvania), Professor, Construction
Clark, Jack L., Ph.D., (Laurence University), Professor, Construction
Cormack, Elizabeth O., M.A., R.P.T., (University of New Mexico), Assistant Professor, Physical Therapy
Couch, James E., M.S., (Florida State University), Associate Professor, Communications Technology
Curry, Katharine R., Ph.D., R.D., (Southern Illinois University), Associate Dean and Professor, School of Technology
DeGroot, Sybil, Ph.D.,(Ohio State University), Professor, Industrial Systems
Dudley, Suze, M.S., O.T.R., L.O.T. (Florida International University), Assistant Professor, Occupational Therapy
Dunevitz, Burton J., Ph.D., R.P.T., (Nova University), Acting Chairperson and Associate Professor, Physical Therapy

Easton, Penelope S., Ph.D., R.D., (Southern
Illinois University), Professor, Dietetics and Nutrition
Hahs, Jimmy Dean ., D.E., P.E.,(University of Oklahoma), Associate Professor, Civil Engineering Technology
Hall, Charles, B.A. (Florida International University), Coordinator and Instructor, Center for Labor Research Studies
Haskins, Awilda R., M.S. (State University of New York at Buffalo, Assistant Professor, Physical Therapy
Higgins, Terry W., M.S., R.P.T., (Medical College of Virginia), Assistant Professor, Physical Therapy
Himburg, Susan P., Ph.D., R.D., (University of Miami), Assistant Professor, Dietetics and Nutrition
Hout-Cooper, Neil M., Ph.D.,(Florida Atlantic University), Assistant Professor, Industrial Systems
Howard, Greta, M.Sc., (Florida International University), Assistant Professor, Home Economics
James, Susan S., M.S., (Barry College), Assistant Professor, Home Economics
Katz, Eric S., M.S.,(Florida State University), Assistant Professor, Communication Technology
Khan, Abdur Rasheed, Ph.D., R.D., (Kansas State University), Assistant Professor, Dietetics and Nutrition
Kruse, Barbara S., M.P.H., R.D.,(University of California at Berkeley), Visting Instructor, Dietetics and Nutrition
Leonard, Rene J., D.A., (University of Miami), Associate Professor, Electrical and Mechanical Engineering Technology
Llevada, Evodio, Ph.D., (University of Miami), Assistant Professor, Industrial System
LeRoy, David J., Ph.D., (University of Wisconsin), Chairperson and Professor, Communication Technology
Martinson, David L., Ph.D., (University of Minnesota), Associate Professor, Communication Technology
Majzub, Iraj E., D. Arch., (University of Torino), R.A., Acting Chairperson and Professor, Construction
Meszaros, Hedvika, M. Arch. Engr., (Czech University of Technology in Prague), R.A., Assistant Professor, Construction
Morrow, Betty, Ph.D., (University of Miami), Chairperson and Associate Professor, Home Economics
Otazo, Julio O., M.A. Arch., (University of Florida), R.A., Assistant Professor, Construction

## Faculty

Pursell, Juanita S., B.S., (Florida International Unit'ersity), Assistant Professor, Medical Record Administration
Radin, Ian, Ph.D., (University of Missouri), Associate Professor, Electrical and Mechanical Engineering Technology
Rees, Morgan D., B.S., (Florida International University), Instructor, Communication Technology
Remington, John, Ph.D., (University of Michigan), Associate Professor, Industrial Systems and Director, Center for Labor Research Studies.
Robinson, Joyce T., M.S., M.T., (ASCP), (Pepperdine University), Assistant Professor, Medical Technology
Skellings, Edmund G., Director and Professor, International Instilute for Creative Communications
Smith, Adele, M.S., (Auburn University), Assistant Professor, Home Economics
Smith, Sylvia L., M.S., S.M., (AAM), S.M., (ASCP), (University of Miami), Associate Professor, Medical Technology

Starling, Shirley, M.H.S., O.T.R.,(University of Florida), Assistant Professor, Occupational Therapy
Storm, Penelope, Ph.D., (University of Maryland), Associate Professor, Home Economics
Story, James R., Ph.D., (University of Alabama), Chairperson and Associate Professor, Electrical and Mechanical Engineering Technology
Subbarao, Wunnava V., Ph.D., (Andhra University), Associate Professor, Engineering Technology
Surti, Vasant H., Ph.D.,/Catholic University of America), Professor, Civil Engineering Technology
Tall, Lambert, Ph.D., (Lehigh University), Dean and Professor, School of Technology
Thompson, LeRoy E., Ph.D., P.E., (Rice University), Chairperson and Professor, Civil and Environmental Engineering Technology
Ural, Oktay, Ph.D., P.E., (North Carolina State University), Director, International

Association for Housing Science and Professor, Construction
Villar, Juan, M.S., (Georgia Institute of Technology), Assistant Professor, Engineering Technology
Villate, Jose T., Ph.D., (University of Wisconsin), P.E., Associate Professor, Engineering Technology
Wallace, Donald F., Ph.D., P.E., IUniversity of Missouri), Acting Chairperson and Associate Professor, Industrial Systems
Wilson, Margaret G., Ph.D., (University of Southern Califormia), Assistant Professor, Industrial Systems
Wilson, Peggy, Ph.D., (University of Southern California), Research Director and Assistant Professor, Center for Labor Research Studies
Zins, Janet L., Ph.D., M.T., (ASCP), (University of Miami), Acting Chairperson and Associate Professor, Medical Technology

## Military 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. AII 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 University's Army ROTC Program is offered through a crossenrollment agreement with the University of Miami. The classroom portion of the courses are taught at Florida International University one day each week. Any questions should be referred to the Military Science Department at the University of Miami.

## LOWER DIVISON 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

$$
\text { MIS } 4120,4410
$$

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 and 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 Principals of USAF

Leadership and Management (3)(F) Professionalism; responsibilities; the Military Justice System; Ieadership theory and practices; management tools, principles, practice; problem solving.

## AFR 3210 Principals of USAF

Leadership and Management (3)(W) Continuation of AFR 3201.

AFR 4220 National Security Forces
In Contemporary
American Society
Principal requisites for maintaining adequate
national security forces. Functional processes
and institutional structure involved in the for-
mulation and implementation of U.S. defense
policy.
AFR 4230 National Security Forces
In Contemporary
American Society 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
(Advanced MS II) A behavioral science approach to military leadership and motivation, with emphasis on crisis-oriented organizations.
MIS 3310 Advanced Military III
Applied tactics; principles and fundamentals of tactical operations. Advanced Ieadership.

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.

FLORIDA INTERNATIONAL UNIVERSITY
TAMIAMI CAMPUS


## Academic/Emergency

## A

Academic Advising (see academic programs)
Academic Affairs, Division of
Academic Calendar (inside front and back cover)
Academic Degrees
Academic Honors
Academic Information
Academic Majors Leading to the Bachelors Degrees Masters Degrees
Doctoral \& Specialist Degrees
Academic Programs-see titles
Academic Regulations
Academic Warning, Probation and Dismissal
Acceleration, academic
Accounting
Undergraduate
Graduate
Accreditation, academic
Administration
Elementary
General
Secondary
Administration and Supervision
Adult Education
Administration and Supervision of
Vocational Education
Administrative Affairs, Division of
Administration and Staff Personnel
Admission
Bachelors Programs
College of Arts and Sciences
Freshman Requirements
Graduate Programs
International Students
Readmission
School of Business and Organizational Sciences
School of Education
School of Hospitality Management
School of Public Affairs and Services
School of Technology
Adult Education
Adult Learning Systems Certificate
Advanced Placement Program
Alumni Affairs

EDU 32
GEN 23, 29

GEN 3
GEN 15
GEN 3
GEN 3
GEN 4
GEN 4
GEN 12
GEN 15
GEN 14
BUS 4
BUS 9
GEN 3
EDU 4
EDU 5
EDU 4
EDU 4, 6

GEN 21
GEN 29
GEN 9
A\&S 2
GEN 9
GEN 9
GEN 10
GEN 10
BUS 2
EDU 2
SHM 2
PAS 2
TECH 2
EDU 5
EDU 5
GEN 14
GEN 27

American Studies Certificate
Anthropology
Apparel Design
Management
Apparel Management
Apparel Manufacturing
Management Certificate
Apparel Merchandising
Management
Application
Graduation
University, for Admission
Architectural Technology
Art
Performing
Visual
Art Education
Arts and Sciences, College of Faculty
Athletics
Intercollegiate
Recreational Sports
Auxiliary Services
GEN 6, A\&S 68
A\&S 2
TECH 22
TECH 22
TECH 27
TECH 23
GEN 16
GEN 9
TECH 7
A\&S 41
A\&S 66
EDU 20, 23
A\&S 2
A\&S 73
GEN 20
GEN 20
GEN 22

B

| Banking Certificate | BUS 11 |
| :--- | :--- |
| Biological Sciences | A\&S 4 |
| Biology Education | EDU 20 |
| Black Studies | A\&S 69 |
| Boards and Officials | GEN 2 |
| Building Program University | GEN 2 |
| Business Administration (MBA) | BUS 6 |
| Business Education | EDU 29,32 |

Business and Organizational Sciences,
Bachelors Programs
BUS 2
Course Descriptions BUS 12
Faculty
Graduate Studies
School of
Business Teacher Education
BUS 24
BUS 6
BUS 2
EDU 28
C
Campus Ministry
Campuses, University
Career Placement
Caribbean-Latin American Studies
Cuban Studies
Certificate Programs
Apparel Manufacturing
Management
Banking
Caribbean Studies
Consumer Affairs
Emergency Medical Services

GEN 21
GEN 2
GEN 20
GEN 6, A\&S 74
A\&S 69

GEN 6, TECH 27
GEN 6, BUS 12
GEN 6, A\&S 74
GEN 7, A\&S 75
GEN 7

## Environmental/English

| Environmental Studies | GEN 7 | See Academic Program titles |  |
| :---: | :---: | :---: | :---: |
| Ethnic Studies | GEN 7, A\&S 76 | CPA Requirements | BUS 4, 9 |
| Food Technology | GEN 7, TECH 29 | Creative \& Performing Arts for |  |
| Heating, Ventilating and Air |  | the Exceptional | EDU 17 |
| Conditioning Design | GEN 7, TECH 17 | Credit |  |
| Industrial and Labor Relations | GEN 7, TECH 29 | Departmental Credit by |  |
| Industrial Safety | GEN 7, TECH 28 | Examination | GEN 14 |
| Information Systems | GEN 7, BUS 13 | For Life Work Experience | GEN 14, 26 |
| Insurance | GEN 7, BUS 13 | Criminalistics-Chemistry Program | PAS 3 |
| Latin American Studies | GEN 6, A\&S 74 | Criminal Justice Program |  |
| Linguistic Studies | GEN 8, A\&S 76 | Undergraduate | PAS 2 |
| Marine Science | GEN 8, A\&S 77 | Graduate <br> Cuban Studies | PAS 4 <br> A\&S 69 |
| Marketing | GEN 8, BUS 13 | Cuban Studies Curriculum and lnstruction | AdS 69 |
| Personnel Administration | GEN 8, BUS 13 | Curriculum and Instruction |  |
| Production and Manufacturing | GEN 8, TECH 28 | D |  |
| Savings and Loan | GEN 8, BUS 14 | Dean's List |  |
| Transportation Management | GEN 8, BUS 14 |  |  |
| Western Social and Political Thought | GEN 8 | Degree Requirements Also see Academic Programs | GEN 12 |
| Women's Studies |  | Degrees, academic | GEN 3 |
| Program | GEN 9 | Degrees, two | GEN 14 |
| Certification, (Teacher) Programs | EDU 2, 16 | Developmental Education/ |  |
| Change of Grade | GEN 15 | Student Retention Services | GEN 19 |
| Chemistry | A\&S 7 | Development, Office of | GEN 27 |
| Chemistry Education | EDU 21 | Diagnostic Teaching | EDU 14 |
| Childhood Education | EDU 9 | Dietetics and Nutrition | TECH 11 |
| Civil and Environmental |  | Undergraduate | TECH 11 |
| Engineering Technology | TECH 18 | Graduate | TECH 11 |
| Class Attendance | GEN 13 | Dietetics, Therapeutic and |  |
| Class Loads | GEN 13 | Community | TECH 12 |
| Clothing and Textile | TECH 23 | Dietetic Management | TECH 12 |
| College Level Examination |  | Dismissal | GEN 15 |
| Program | GEN 14 | Drinking Water |  |
| Communications | TECH 3 | Research Center | TECH 39 |
| Computer Science | A\&S 30 | Dropping and Adding Courses | GEN 15 |
| Conferences, Department of | GEN 23 |  |  |
| Consortium Career Planning and |  | E |  |
| Placement Services | GEN 20 | Early Childhood Education | EDU 10 |
| Consortium Library Privileges | GEN 25 | Earth Sciences | A\&S 11 |
| Consortium Media Privileges | GEN 26 | Economics | AdSS 13 |
| Consortium Student Activities | GEN 20 | Educational Leadership \& |  |
| Construction | TECH 6 | Human Resource |  |
| Construction Engineering |  | Development | EDU 3 |
| Technology | TECH 7 | Education, School of | EDU 2 |
| Construction Management | TECH 8 | Faculty | EDU 36 |
| Consumer Affairs Institute | GEN 25 | Elder's Institute | GEN 23 |
| Consumer Affairs Program | A\&S 68 | Electives, Definition of | GEN 13 |
| Continuing Education | GEN 23 | Electrical and Mechanical |  |
| Cooperative Education | GEN 20 | Engineering Technology | TECH 14 |
| Counseling Services | GEN 19 | Elementary Education | EDU 9 |
| Counselor Education | EDU 15 | Elementary School |  |
| Courses |  | Administration \& |  |
| Adding | GEN 15 | Supervision | EDU 4 |
| Definitions | GEN 13 | Emergency Medical Services |  |
| Dropping | GEN 15 | Certificate | GEN 7 |
| Loads | GEN 13 | Engineering Technology | TECH 14 |
| Repeated | GEN 15 | English | A\&S 17 |

## English/International

| English Education | EDU 21, 24 |
| :---: | :---: |
| Environmental and Urban |  |
| Problems |  |
| Joint Center | GEN 24 |
| Environmental and Urban |  |
| Systems | TECH 19 |
| Environmental Health |  |
| Environmental Studies | A\&S 19, 69 |
| Ethnic Studies Certificate | GEN 7, AdSS 69 |
| Examination, final | GEN 15 |
| External Degree |  |
| Program | GEN 24 |
| Also see Academic Programs |  |
| F |  |
| FAU-FIU Joint Center for |  |
| Environmental and Urban |  |
| Problems | GEN 24 |
| Faculty Scholars Program | GEN 24 |
| Family Child Development | TECH 24 |
| Fees | GEN 17 |
| Final Examinations | GEN 15 |
| Finance |  |
| Undergraduate | BUS 4 |
| Graduate | BUS 9 |
| Financial Aid | GEN 18 |
| Financial Information | GEN 16 |
| Florida Board of Regents | GEN 2 |
| Florida International University |  |
| Florida International University |  |
| Bay Vista | GEN 2 |
| Florida Statewide Course |  |
| Numbering System | GEN 27 |
| Food and Nutrition | TECH 24 |
| Food Service | GEN 21 |
| Food Technology Certificate | TECH 29 |
| G |  |
| General Education Requirements | GEN 12 |
| General Home Economics | TECH 24 |
| General Hospitality Management | SHM 3 |
| General Information | GEN 2 |
| General School Administration \& |  |
| Supervision | EDU 5 |
| Goals of the University | GEN 2 |
| Governance | GEN 21 |
| Grades |  |
| Changes | GEN 15 |
| Correction | GEN 15 |
| P/F Option | GEN 15 |
| Reports | GEN 15 |
| Grading System | GEN 15 |
| Graduate Study |  |
| Admissions | GEN 9 |
| Application | GEN 9 |


| Programs-Also see College/ Schools |  |
| :---: | :---: |
| Graduation |  |
| Application for | GEN 16 |
| H |  |
| Handicapped Students | GEN 19 |
| Handicapped, Education of |  |
| Severely/Profoundly | EDU 14 |
| Health Education | EDU 20, 23 |
| Health Occupations Education | EDU 29, 33 |
| Health Services Administration |  |
| Undergraduate | PAS 6 |
| Graduate | PAS 6 |
| Heating-Ventilating and Air |  |
| Conditioning Design | TECH 16 |
| History | A\&S 22 |
| History Education | EDU 21 |
| History of the University | GEN 2 |
| Home Economics | TECH 22 |
| Honors, Academic | GEN 15 |
| Hospitality Management, | SHM 2 |
| Faculty | SHM 2,6 |
| Hotel and Food Service |  |
| Management | SHM 3 |
| Housing, Off Campus | GEN 19 |
| Humanities | A\&S 24 |
| I |  |
| Incomplete Grade | GEN 15 |
| Industrial Arts Education | EDU 32 |
| Industrial and Labor Relations |  |
| Certification | TECH 29 |
| Industrial Safety Certificate | TECH 29 |
| Industrial Systems | TECH 28, GEN 28 |
| Industrial Technology | TECH 28 |
| Information Services | GEN 27 |
| Information Systems Certificate | BUS 11 |
| Information Systems-Graduate | BUS 10 |
| Insurance (Academic Degree |  |
| Program) | BUS 5 |
| Insurance Certificate | BUS 11 |
| Intercollegiate Athletics and |  |
| Recreational Sports | GEN 20 |
| Interior Design | TECH 8 |
| Internal Management |  |
| Auditing Unit | GEN 22 |
| International Affairs Center | GEN 26 |
| International Business |  |
| Undergraduate | BUS 5 |
| Graduate | BUS 8 |
| International Institute for the |  |
| Study of Sports | EDU 28 |
| International Institute for |  |
| Housing and Building | GEN 25 |

## International/Science

| International Relations | A\&S 26 |
| :---: | :---: |
| International Students |  |
| Admission Procedures | GEN 10 |
| Admission Standards | GEN 10 |
| International Student Services | GEN 19 |
| J |  |
| Jewish Studies Certificate <br> Program <br> A\&S 69 |  |
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| Labor Research and Studies | GEN 23 |
| Latin American Studies |  |
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| Liberal Studies | A\&S 28 |
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| Linguistic Studies Certificate | A\&S 71 |
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| Two (Dual) | GEN 13 |
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| Graduate | BUS 7 |
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| Affairs | TECH 23 |
| Marine Officer Programs | ROTC 1 |
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| Marketing | BUS 6 |
| Marketing Certificate | BUS 11 |
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| Mathematical Sciences | A\&S 29 |
| Mechanical Engineering |  |
| Technology | TECH 15 |
| Media Services | GEN 25 |
| Medical Records Administration | TECH 31 |
| Medical Technology | TECH 33 |
| Minor (Academic) | GEN 13 |
| Minority Affairs and Women's |  |
| Concerns | GEN 27 |
| Modern Languages | A\&S 35 |
| Modern Language Education | EDU 22, 24 |
| Music | A\&S 41 |
| Music Education | EDU 20, 24 |

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| Non Degree Seeking Students | GEN 12 |
| :--- | :--- |
| Nursing | GEN 24 |

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Occupational Therapy
TECH 35
Off Campus Housing
GEN 19

| P |  |
| :---: | :---: |
| Parks and Recreation |  |
| Administration | EDU 3, 6 |
| Past Due Student Accounts | GEN 17 |
| Performing Arts | A\&S 41 |
| Personnel Management |  |
| Certificate | BUS 11 |
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| Physical Education | EDU 21, 24 |
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| Physical Plant Operations | GEN 22 |
| Physical Sciences | A\&S 45 |
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| Physics | A\&S 49 |
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| Planning and Analysis | GEN 27 |
| Political Science | A\&S 51 |
| Post-Secondary Technical |  |
| Education | EDU 30 |
| Premedical Advisement | GEN 16 |
| Probation | GEN 15 |
| Production and Manufacturing |  |
| Program and Course Regulations | GEN 13 |
| Psycho-Educational Services | EDU 13 |
| Psychology | A\&S 56 |
| Public Administration |  |
| Undergraduate | PAS 14 |
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| Public Affairs and Services, |  |
| Faculty | PAS 21 |
| Publication Services | GEN 27 |
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| Reading | EDU 10 |
| Readmission | GEN 10 |
| Real Estate |  |
| Undergraduate | BUS 6 |
| Graduate | BUS 10 |
| Records Student | GEN 13 |
| Recreational Sports | GEN 20 |
| Refund of Fees | GEN 17 |
| Registration | GEN 11 |
| Religious Studies | A\&S 45 |
| Repeated Courses | GEN 15 |
| Residency Requirements, |  |
| Academic | GEN 16 |
| ROTC |  |
| Air Force | ROTC 1 |
| Army | ROTC 1 |
| S |  |
| Savings and Loan Certificate | BUS 12 |
| School/College Relations | GEN 11 |
| School Psychology | EDU 16 |
| Science Education | EDU 24 |

## Secondary School/Word Processing

| Secondary School Administration |  | Technical Education | EDU 31 |
| :---: | :---: | :---: | :---: |
| \& Supervision | EDU 4 | Technology. School of | TECH 2 |
| Severely/Profoundly |  | Faculty | TECH 39 |
| Handicapped | EDU 16 | Theater | A\&S 39 |
| Social Studies Education | EDU 24 | Transcript | GEN 15 |
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| Social Work, Graduate | PAS 21 | academic programs) | CEN 9, 18 |
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| Southeast Florida Education |  | Transportation Management |  |
| Consortium | GEN 3 | Certificate | BUS 12, GEN 8 |
| Southeast Regional Data Center | GEN 22 | Traveling Scholars Program | GEN 14 |
| Special Events | GEN 27 |  |  |
| Special Services and Handicapped | GEN 19 | U |  |
| Special Students |  | University Controller | GEN 22 |
| Non-degree Seeking | GEN 12 | University House | GEN 20 |
| Specialist in Education Degree | EDU 4 | University Officials | GEN 2 |
| Sponsored Research and |  | University Personnel Services | GEN 23 |
| Training, Division of | GEN 26 | University Public Safety | GEN 19 |
| Staff Personnel | GEN 29 | University Purchasing Services | GEN 23 |
| Standards of Conduct | GEN 13 | University Relations and |  |
| State Board of Education | GEN 2 | Development | GEN 26 |
| State University External Degree Program | GEN 24 |  |  |
| Statewide Course Numbering | GEN 27 | V |  |
| Statistics | A\&S 25 |  | GEN 18 |
| Student Accounts, Past Due | GEN 17 | Visual Arts | A\&S 66 |
| Student Activities and Organizations | GEN 20 | Vocational Education | EDU 28 |
| Student Affairs, Division of | GEN 18 | Vocational Education for the Handicapped | EDU 16 |
| Student Classifications | GEN 13 | Vocational Home Economics |  |
| Course Loads | GEN 13 | Education | EDU 29, 31 |
| Residency Requirements | GEN 16 | Vocational Industrial Education | EDU 30, 33 |
| Tuition Student Government | GEN 17 | Vocational Teacher Certification, |  |
| Student Government Student Grievance Procedures | GEN 21 | Rank III | EDU 32 |
| Student Grievance Procedures Student Health Care | GEN 13 | Vocational Teacher Certification, |  |
| Student Publications | GEN 21 | Rank II | EDU 32 |
| Student Records | GEN 13 |  |  |
| Student Retention | GEN 19 |  |  |
| Student Teaching and Field Experiences | EDU 9, 20 | W |  |
| Subject Specializations | EDU 19 | Western Social and Political |  |
| Sundry Fees | GEN 17 | Thought Certificate Program | A\&S 72 |
| T |  | Withdrawal from University | GEN 11 |
|  |  | Women's Center | GEN 24 |
| TESOL |  | Women's Studies Certificate | A\&S 73 |
| Teaching English to Speakers of |  | Minority Affairs | GEN 27 |
| Other Languages | EDU 25 | Word Processing Center | GEN 21 |

## ACADEMIC CALENDAR 1981-82 FLORIDA INTERNATIONAL UNIVERSITY

## SUMMER SEMESTER 1982 (Complete Term and Terms A and B)

February 8
April 5-April 9
April 12-May 5
April 5
May 11
May 13
May 19

May 26
June 2
June 23
June 24
June 28
July 5
July 6

July 12
July 19
August 6

Last Day for Receipt of Admissions Application for International Students Applying to the Summer Term Official Registration Week (Degree-Seeking Students) for the Summer Term
Open Registration for Summer Term
Last Day for Receipt of Applications (Including Appropriate Credentials) for Regular Admissions to the Summer Term
Registration Day
Classes Begin (Complete Term and Term A)
Last Day to Complete Late Registration (Complete Term and Term A)
Drop/Add Period Ends
Last Day to Drop Courses or Withdraw from the University Without Incurring a Financial Liability*
Last Day to Pay Fees Without a $\$ 50.00$ Late Fee
Last Day to Pay Fees to Avoid Cancellation of Enrollment
Last Day to Pay Fees for Term B, if registration has been Completed
Last Day to Apply for Summer Term Graduation (Complete Term and Term A)
Last Day to Drop a Course with a Grade of DR (Term A)
Last Day to Withdraw from the University With a WI Grade (Term A)
Last Day to Drop a Course with a Grade of DR (Complete Term)
Last Day to Withdraw from the University with a Wl Grade (Complete Term)

## Classes End (Term A)

Registration Day (Term B)
Classes Begin (Term B)
Independence Day Holiday (University Closed)
Last Day to Complete Late Registration (Term B)
Drop/Add Period Ends (Term B)
Last Day to Drop Courses or Withdraw from the University Without Incurring a Financial Liability (Term B)*
Last Day to Pay Fees to Avoid Cancellation of Enrollment Term B (only if enrollment was processed on June 25, Registration Day for Term B)
Last Day to Apply for Summer Term Graduation (Term B)
Last Day to Drop a Course with a Grade of DR (Term B)
Last Day to Withdraw from the University With a WI Grade (Term B)
Classes End (Complete Term and Term B)

[^6]Florida International University
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[^0]:    Recommended Citation
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    http://digitalcommons.fiu.edu/catalogs/12

[^1]:    *The complete program of studies is not available on the Bay Vista Campus. The student is expected to complete course work on the Tamiami Campus in the School of Business and Organizational Sciences.

[^2]:    A more specific example is A.VH 3$\} 21$.
    

[^3]:    SSE 6925-28 Workshop in Social Studies
    Education
    Production and application of materials and

[^4]:    .

[^5]:    

    Personal and Career Management

[^6]:    *The fee and refund structure given in this catalog are tentative pending legislative action.

