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FIU

FLORIDA INTERNATIONAL UNIVERSITY
Miami's public research university

2001-2002 GRADUATE COURSE CATALOG



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Florida International University

Member of the State University System
Miami, Florida

2001 – 2002 Graduate Catalog

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FIU and Florida International University are registered marks. Florida International University believes in equal opportunity practices which conform to all laws against discrimination and is committed to nondiscrimination with respect to race, color, creed, age, handicap, sex, marital status, 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.

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. **The ultimate responsibility for knowing degree requirements imposed upon students by State law rests with students.**

This document was produced at an annual cost of \$21,973 to \$0.878 per copy to inform the public about University Programs. Fees given in this catalog are tentative pending legislative action.

ACADEMIC CALENDAR 2001-2002

Fall Semester 2001 (August 27 – December 7; Final Exams December 8 – December 14)

May 21	Undergraduate Studies Advising for Fall 2001 term resumes.
May 21	First day to apply for Fall 2001 term graduation.
July 5 - 6	Freshman Orientation (University).
July 6	Transfer Orientation (Biscayne Bay Campus).
July 9 - 10	Freshman Orientation (University Park).
July 12	Transfer Orientation (University Park).
July 12 - 13	Freshman Orientation (Biscayne Bay Campus).
July 16 - 17	Freshman Orientation (University Park).
July 23 - 24	Freshman Orientation (University Park).
July 27	Transfer Orientation (University Park).
July 30	Transfer Orientation (University Park).
August 1 - 2	Freshman Orientation (University Park & Biscayne Bay Campus).
August 3	Transfer Orientation (Biscayne Bay Campus).
August 6 - 10	Registration Access Information available for Fall 2001 term.
August 13 - 17	Official Registration Week (Degree-Seeking Students only) by appointment time and day.
August 20 - 25	Open Registration (All Students). Phone and Web & Kiosk Registration Continuous.
August 16 - 17	Freshman Orientation (University Park).
August 20	Transfer Orientation (University Park).
August 20 - August 25	Short Term Tuition Loan Applications available.
August 21	Transfer Orientation (Biscayne Bay Campus).
August 21 - 22	Freshman Orientation (University Park).
August 22 - 23	Freshman Orientation (Biscayne Bay Campus).
August 22	Graduate Student Orientation (University Park).
August 23	International Student Orientation (University Park & Biscayne Bay Campus)
August 24 - 26	Housing check-in (All students, 9 a.m.-8 p.m.).
August 25	Last day (by 1 p.m.) for students to apply for a Short Term Tuition Loan.
August 25	Last day (by 1 p.m.) to pay tuition and fees to avoid cancellation of enrollment.
August 25	Last day to register (by 1 p.m.) without incurring a \$100.00 late registration fee.
August 26	Freshman Convocation (Required of All Freshman)
August 27	Classes begin.
August 27 - Sept. 1	Registration for State Employees using fee waivers.
September 1	Last day (by 1 p.m.) to complete late registration.
	Drop/Add Period ends at 1 p.m.
	Last day to change a grading option.
	Last day (by 1 p.m.) to drop courses or withdraw from the University without incurring a financial liability.
September 3	Labor Day Holiday (University Closed).
September 7	CLAST exam registration deadline.
September 14	Last day (by 5 p.m.) to apply for graduation at the end of Fall 2001 term.
September 14	Last day to submit FORM C: Thesis/Dissertation Committee Appointments. (Graduate Students)
September 17	Undergraduate Studies Advising before Spring 2002 term begins.
September 22	Last day (by 1 p.m.) to withdraw from the University with a 25% refund of tuition.
October 1 - 5	Faculty Convocation Week
October 5	Faculty Convocation.
October 6	CLAST Exam.
October 8 - Dec 7	Fall 2001 Mini-Term
October 20	Deadline (by 1 p.m.) to drop a course with a DR grade.
	Deadline (by 1 p.m.) to withdraw from the University with a WI grade.
November 11	Veterans' Day Holiday (University Closed).
November 12	Veterans' Day Holiday Observed (University Closed).
November 13	Last day to submit FORM D: Request for Thesis/Dissertation Defense. (Graduate Students)
November 22 - 23	Thanksgiving Holiday (University Closed).
November 27	Last day to hold thesis/dissertation defense. (Graduate Students)

December 7	Classes end.
December 8 – 14	Official Examination Period.
December 17 & 18	Commencement Exercises.
December 18	Grades due.
December 20	Grades available to students by telephone, web and at kiosks.
December 25	Christmas Holiday (University Closed).

Spring Semester 2002

(January 7 – April 19; Final Exams April 20 – 26)

September 1	Last day for International Students to submit applications and all supporting documents for Spring term admission
September 11	First day to apply for Spring 2002 term graduation.
October 1	Admission application priority consideration deadline (except international students).
November 11	Veterans' Day Holiday (University Closed).
November 12	Veteran's Day Holiday Observed (University Closed).
November 12 - 16	Registration Information and Access Codes available for Spring 2002 term.
November 17 - 21	Official Registration Week (Degree-Seeking Students only) by appointment time and day.
November 22 - 23	Thanksgiving Holiday (University Closed). Phone and Web & Kiosk Registration Continuous.
November 26 – Jan. 5	Open Registration All Students. Phone and Web & Kiosk Registration Continuous
November 14	Transfer Orientation (Biscayne Bay Campus).
November 14 – 15	Freshman Orientation (University Park).
November 15 – 16	Freshman Orientation (Biscayne Bay Campus).
November 16	Transfer Orientation (University Park).
December 25	Christmas Holiday (University Closed).
January 1	New Year's Day (University Closed).
January 2	Transfer Orientation (University Park).
January 2 – 5	Short Term Tuition Loan Applications available.
January 3 – 4	Freshman Orientation (University Park).
January 4 – 6	Housing check-in 9 a.m. - 8 p.m.
January 4	International Student Orientation (University Park & Biscayne Bay Campus).
January 5	Last day (by 1 p.m.) for students to apply for Short Term Tuition Loan
January 5	Last day (by 1 p.m.) to pay tuition and fees to avoid cancellation of enrollment.
January 5	Last day to register without incurring a \$100.00 late registration fee.
January 7	Classes begin.
January 7 - 12	Registration for State Employees using fee waivers.
January 12	Last day (by 1 p.m.) to complete late registration. Drop/Add Period ends at 1 p.m. Last day to change grading option. Last day (by 1 p.m.) to drop courses or withdraw from the University without incurring a financial liability.
January 14	Financial Aid Applications available for 2002-2003.
January 18	Last day (by 5 p.m.) to apply for Spring 2002 term graduation.
January 18	Last day to submit FORM C: Thesis/Dissertation Committee Appointments. (Graduate Students)
January 18	Last day to register for the CLAST exam.
January 21	Undergraduate Studies Advising for Summer/Fall 2002 terms begins.
January 21	Martin Luther King Holiday (University Closed).
February 2	Last day (by 1 p.m.) to withdraw from the University with a 25% refund of tuition.
February 16	CLAST Exam.
Feb. 18 – April 19	Spring 2002 Mini-Term
March 2	Last day (by 1 p.m.) to drop a course with a DR grade. Last day (by 1 p.m.) to withdraw from the University with a WI grade. Spring Break.
March 18 – 22	Spring Break.
March 22	Last day to submit FORM D: Request Thesis/Dissertation Defense. (Graduate Students)
April 5	Last day to hold thesis/dissertation defense. (Graduate Students)
April 19	Classes End.
April 20 – 26	Official Examination Period.
April 26	Last day to submit final copy and FORM F: Thesis/Dissertation Memorandum of Approval. (Graduate Students)

April 29 & 30	Commencement Exercises.
April 30	Grades due.
May 2	Grades available to students by telephone, web and at kiosks.

Summer Semester 2002 (May 6 – August 15)

Summer Term A (May 6 – June 21)

April 8 – 12	Registration Information and Access Codes available for Summer term.
April 15 – 19	Official Registration Week (Degree-Seeking Students only) by appointment time and day.
April 22 – May 4	Open Registration (All Students). Phone and Web & Kiosk Registration Continuous.
April 11	Transfer Orientation (University Park).
April 18	Transfer Orientation (Biscayne Bay Campus).
April 29 – May 4	Short Term Tuition Loan Applications available.
May 3	International Student Orientation (University Park & Biscayne Bay Campus)
May 3 – 5	Housing check-in 9 a.m. to 8 p.m. for Summer Term A.
May 4	Last day (by 1 p.m.) for students to apply for a Short Term Loan.
May 4	Last day (by 1 p.m.) to pay tuition and fees to avoid cancellation of enrollment.
May 4	Last day (by 1 p.m.) without incurring \$100.00 late registration fee.
May 4	Last day to register for June 1 st CLAST exam.
May 6	Classes begin.
May 6 - 11	Registration for State Employees using fee waivers.
May 11	Last day (by 1 p.m.) to complete late registration.
	Drop/Add Period ends at 1 p.m.
	Last day to change grading option.
	Last day (by 1 p.m.) to drop courses or withdraw from the University without incurring a financial liability.
May 24	Last day (by 5 p.m.) to apply for Summer 2002 graduation.
May 24	Last day to submit FORM C: Thesis/Dissertation Committee Appointments. (Graduate Students)
May 27	Memorial Day Holiday (University closed).
June 1	Last day (by 1 p.m.) to drop a course with a DR grade.
	Last day (by 1 p.m.) to withdraw from the University with a WI grade.
	Last day (by 1 p.m.) to withdraw from the University with a 25% refund of tuition.
June 1	CLAST Exam.
June 21	Classes end.*
June 25	Grades due.
June 27	Summer Term A grades available to students via the web and at kiosks.
August 21	Final grades and GPA calculation available by telephone, web and at kiosks.

Summer Term B (July 1 – August 15)

June 17 – 29	Summer Term B registration resumes
June 17 – 18	Freshmen Orientation (University Park & Biscayne Bay Campus).
June 20 – 21	Freshman Orientation (University Park & Biscayne Bay Campus).
June 24 – 25	Freshmen Orientation (University Park).
June 26 – 27	Freshman Orientation (Biscayne Bay Campus).
June 27 – 28	Freshmen Orientation (University Park).
June 28	International Student Orientation (University Park & Biscayne Bay Campus)
June 28 – June 30	Housing Check-in 9 a.m. to 8 p.m. for Summer Term B.
June 29	Last day (by 1 p.m.) to pay tuition and fees to avoid cancellation of enrollment.
June 29	Last day to register without incurring \$100.00 late registration fee.
July 1	Classes begin.
July 1 – 5	Registration for State Employees using fee waivers.
July 4	Independence Day Observed (University Closed).
July 6	Last day (by 1 p.m.) to complete late registration.
	Drop/Add Period ends at 1 p.m.
	Last day to change grading option.

	Last day (by 1 p.m.) to drop courses or withdraw from the University without incurring a financial liability.
July 12	Last day to submit FROM D: Request for Thesis/Dissertation Defense. (Graduate Students)
July 26	Last day to hold thesis/dissertation defense.
July 27	Last day (by 1 p.m.) to drop a course with a DR grade. Last day (by 1 p.m.) to withdraw from the University with a WI grade. Last day (by 1 p.m.) to withdraw from the University with a 25% refund of tuition.
August 15	Classes end.
August 16	Last day to submit final copy and FROM F: Thesis/Dissertation Memorandum of Approval. (Graduate Students)
August 19	Grades due.
August 21	Grades available to students by telephone, web and at kiosks.

Summer Term C (May 6 – August 15)

April 8 – 12	Registration Information and Access Codes available for Summer term.
April 15 – 19	Official Registration Week (Degree-Seeking Students only) by appointment time and day.
April 22 – May 4	Open Registration (All Students). Phone and Web & Kiosk Registration Continuous.
April 11	Transfer Orientation (University Park).
April 18	Transfer Orientation (Biscayne Bay Campus).
April 29 – May 4	Short Term Tuition Loan Applications available.
May 3	International Student Orientation (University Park & Biscayne Bay Campus).
May 3 – May 5	Housing Check-in 9 a.m. to 8 p.m. for Summer Term C.
May 4	Last day (by 1 p.m.) for students to apply for a Short Term Tuition Loan.
May 4	Last day (by 1 p.m.) to pay tuition and fees to avoid cancellation of enrollment.
May 4	Last day to register without incurring a \$100.00 late registration fee.
May 4	Last day to register for the June 1 st CLAST exam.
May 6	Classes begin.
May 6 - 11	Registration for State Employees using fee waivers.
May 11	Last day (by 1 p.m.) to complete late registration.
	Drop/Add Period ends at 1 p.m.
	Last day to change grading option.
	Last day (by 1 p.m.) to drop courses or withdraw from the University without incurring a financial liability.
May 24	Last day (by 5 p.m.) to apply for Summer 2002 graduation.
May 24	Last day to submit FORM C: Thesis/Dissertation Committee Appointments. (Graduate Students)
May 27	Memorial Day Holiday (University closed).
May 28	Undergraduate Studies Advising for Fall 2002 term resumes.
June 1	Last day (by 1 p.m.) to withdraw from the University with a 25% refund of tuition.
June 1	CLAST exam.
June 29	International Student Orientation (University Park & Biscayne Bay Campus).
June 29	Last day (by 1 p.m.) to drop a course with a DR grade. Last day (by 1 p.m.) to withdraw from the University with a WI grade.
July 4	Independence Day Observed (University Closed).
August 15	Classes end
August 19	Grades due.
August 21	Grades available to students by telephone, web and at kiosks.
August 26	Fall semester classes begin.

*Grades will be posted on transcripts. However, graduation will not be processed until the end of the Complete Summer Term, August 15.

Calendar dates are subject to change. Please contact appropriate offices for verification and updates.

This calendar includes official University holidays. Faculty are encouraged to make accommodations for students who wish to observe religious holidays. For a listing of religious holidays you may visit <http://www.earthcalendar.net>

Students should make their request known at the beginning of the semester.

General Information

State Board of Education

Jeb Bush	<i>Governor</i>
Katherine Harris	<i>Secretary of State</i>
Robert Butterworth	<i>Attorney General</i>
Robert F. Milligan	<i>Comptroller</i>
Bill Nelson	<i>State Treasurer</i>
	<i>and Insurance Commissioner</i>
Bob Crawford	<i>Commissioner of Agriculture</i>
Tom Gallagher	<i>Commissioner of Education</i>

Florida Board of Regents

Thomas F. Petway, III	<i>Chairman, Jacksonville</i>
James D. Corbin	<i>Vice Chairman, Chattahoochee</i>
Charlie Crist	<i>Commissioner of Education, Tallahassee</i>
Richard A. Beard III	<i>Tampa</i>
Adolfo Henriques	<i>Miami</i>
James F. Heekin, Jr.	<i>Orlando</i>
Phillip D. Lewis	<i>Riviera Beach</i>
Elizabeth G. Lindsay	<i>Sarasota</i>
J. Collier Merrill	<i>Pensacola</i>
Jon C. Moyle	<i>West Palm Beach</i>
Carolyn K. Roberts	<i>Ocala</i>
Steven J. Uhhfelder	<i>Tallahassee</i>
Welcom H. Watson	<i>Fort Lauderdale</i>
Natalie M. Copeland	<i>Student Regent, University of South Florida</i>
Judy G. Hample	<i>Chancellor, State University System</i>

Executive Council

Modesto A. Maidique	<i>President</i>
Mark B. Rosenberg	<i>Provost and Executive Vice President for Academic Affairs</i>
Paul D. Gallagher	<i>Executive Vice President for Business and Finance</i>
Gwendolyn V. Boyd	<i>Vice President for Administration</i>
Thomas A. Breslin	<i>Vice President for Research</i>
Steve Sauls	<i>Vice Provost for University Relations</i>
Patricia Telles-Irvin	<i>Vice President for Student Affairs</i>
Dale C. Webb	<i>Vice President for University Advancement</i>

History

Florida International University, a member institution of the State University System of Florida, was established by the State Legislature on June 22, 1965. Classes began at University Park on September 19, 1972, with nearly 6,000 students enrolled in upper-division undergrad-

uate and graduate programs. In 1981 the University added lower division classes for freshmen and sophomores, expanding its enrollment capacity. In 1984, the University received authority to begin offering degree programs at the doctoral level; these programs received Level IV accreditation from the Southern Association of Colleges and Schools (SACS) in 1986.

The Florida Board of Regents appointed Charles E. Perry as the first president of FIU in July of 1969. He was succeeded in June, 1976 by President Harold B. Crosby. Gregory B. Wolfe was named the third president in February, 1979. Modesto A. (Mitch) Maidique was named the fourth President of Florida International University on August 27, 1986. Maidique received his Ph.D. in Electrical Engineering from the Massachusetts Institute of Technology and was associated with MIT, Harvard, and Stanford for 20 years.

University Mission

Florida International University is an urban, multicampus, research university serving Southeast Florida, the state, the nation and the international community by imparting knowledge through excellent undergraduate and graduate teaching, by creating new knowledge through research, and by promoting public service.

Five strategic themes guide the University's development: International, Environmental, Urban, Health, and Information. We focus on these themes with a commitment to quality management and cultural diversity. The University's priorities are to graduate a well-educated, technologically sophisticated, ethnically diverse student body, who can think critically about a changing world; to continue to enhance undergraduate teaching while broadening graduate and professional programs; to promote research and creative activities which contribute to the social, artistic, cultural, economic, environmental, scientific and technological foundations for the 21st century; and to solve critical social, educational, environmental, health and transportation problems through applied research and service. These strategic themes and priorities guide our pursuit of recognition as one of America's top 25 public urban research universities while maintaining the highest quality of undergraduate pro-

grams.

(Reviewed by Florida Board of Regents, Fall 1999).

Campuses

FIU has two major campuses, University Park in western Miami-Dade County and the Biscayne Bay Campus in northeast Miami-Dade County. It also has two academic sites that serve Broward County, in Davie and downtown Fort Lauderdale.

Architecturally distinctive University Park, FIU's first campus and administrative headquarters, occupies 342 acres of lush tropical landscaped grounds. Apartment style and traditional residence halls, the Golden Panther Sports Arena, a new state-of-the-art eight-story Library, an environmental preserve and other athletic facilities, contribute to a pleasant collegiate atmosphere. The 40-acre Center for Engineering and Applied Science, a major research facility, is located near University Park.

The Biscayne Bay Campus encompasses nearly 200 acres, including a natural mangrove preserve. Its scenic campus offers direct access to the bay, apartment-style housing, a library, an aquatic center, and the Roz and Cal Kovens Conference Center, a state-of-the-art facility that can accommodate up to 500 persons.

The FIU Broward site in Davie emphasizes undergraduate programs. In cooperation with Broward Community College (BCC), there is a "2+2" program in which students enroll in BCC for the first two years of study and complete their degree at FIU. The Rubin O'D. Askew University Tower, in downtown Fort Lauderdale, is primarily utilized for master's and doctoral programs, research and administrative offices.

Research Programs

Florida International University emphasizes research as a major component of its mission. Attainment of Research I status was one of its top priorities and was accomplished. Sponsored research funding from outside sources grew more than five-fold over the last decade, from \$10.21 million in 1989-90 to \$58.07 million in 1999-00. These funds, secured through contracts and grants from private foundations, corporations, and federal and state agencies, are used to conduct research,

provide stipends for graduate students and improve research facilities.

The University

Florida International University – Miami's public research university – is one of America's most dynamic institutions of higher learning. Since opening in 1972, FIU has achieved many benchmarks of excellence that have taken other universities more than a century to reach. The University has a nationally renowned faculty known for their outstanding teaching and cutting-edge research; students from throughout the U.S. and more than 130 foreign countries; and its alumni have risen to prominence in every field and are a testament to the University's academic excellence. The University offers more than 180 baccalaureate, master's and doctoral degree programs in 16 colleges and schools: Accounting, Architecture, Arts and Sciences, Business Administration, Computer Science, Education, Engineering, Health, Health and Urban Affairs, Honors, Hospitality Management, Journalism and Mass Communication, Music, Nursing, Policy and Management, and Social Work. The FIU College of Law will open in 2021.

U.S. News & World Report has ranked FIU among the top 100 public national universities in its annual survey of "America's Best Colleges." FIU has been recognized as one of the top 10 public commuter universities in the nation by *Money*. *Kiplinger's Personal Finance Magazine* ranked FIU as the country's 18th best value in public higher education. The University is a member of the Phi Beta Kappa, the nation's oldest and most distinguished academic honor society. FIU emphasizes research as a major component of its mission and ranked by the Carnegie Foundation for the Advancement of Teaching as a Doctoral/Research University-Extensive, the highest ranking in its classification system. Sponsored research funding from external sources was more than \$58 million in 1999-2000; over the past 10 years, this funding has increased nearly 600 percent.

FIU has more than 32,000 students, 1,100 full-time faculty, and 90,000 alumni, making it the largest university in South Florida and placing it among the nation's 25 largest colleges and universities. The University has two campuses – University Park in western Miami-Dade County and the Biscayne Bay Campus in northeast Miami-Dade

County – and two educational sites that serve nearby Broward County.

The Wolfsonian-FIU

Cathy Leff, *Director*

Located in the heart of Miami Beach's Art Deco District, The Wolfsonian-Florida International University is a museum and research center that serves local, national, and international audiences by promoting the examination, understanding, and appreciation of the ways that design has served as a reflection of societal values and as an active force in the shaping of human experience. The Wolfsonian is accredited by the American Association of Museums. Through thought-provoking exhibitions, publications, research, academic and public programs, The Wolfsonian-FIU focuses on the meaning of objects and the effect that the Industrial Revolution had on the creation of the modern world. The Wolfsonian became part of FIU in July 1997. Its founder, Mitchell Wolfson Jr., donated to FIU his extraordinary collection of the period 1885-1945.

The Wolfsonian holds more than 70,000 objects predominantly from North America and Europe, providing rich evidence of the cultural, political, and technological changes that swept the world in the century preceding the end of World War II. The collection features furniture, decorative arts, industrial design, paintings, sculpture, architectural models, works on paper, rare books, and ephemera. Notable among these are Depression-era prints and mural studies by WPA artists, items from the British Arts and Crafts movement and the German Werkstätten and Werkbund, and artifacts of political propaganda.

Permanent, temporary, and traveling shows address broad themes of the nineteenth and twentieth centuries, such as nationalism, political persuasion, industrialization, architecture and urbanism, consumerism and advertising, transportation, and world's fairs. Although drawing primarily on its own holdings, The Wolfsonian also features exhibitions and objects on loan from other collections.

Days, evenings, and weekends, The Wolfsonian offers a range of lectures, films, symposia, tours, and workshops geared to visitors of all ages. It has paired with Miami-Dade County public schools to develop activities and interpretive materials for students and

teachers in the arts and social sciences. To inquire about an exhibition (present, past, upcoming), program, or the general calendar, or to learn more about the collection and how it can be used for research, please visit www.wolfsonian.org or call (305) 531-1001.

The Wolfsonian publishes catalogues to document its exhibitions and collection. It also produces the award-winning *Journal of Decorative and Propaganda Arts*, a scholarly annual dedicated to exploring the role of art and design in the modern world.

Free admission to exhibitions is provided to all Florida state university faculty, students, and staff with valid ID. In addition, The Wolfsonian is open free to the general public on Thursday evenings from 6:00 pm–9:00 pm. Most educational programs are free to the FIU community, however, occasional fees apply.

Accreditations

All academic programs of the University are approved by the State Board of Education and the Florida Board of Regents. The University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, telephone number 404-679-4501) to award the baccalaureate, masters and doctoral degrees. The professional programs of the respective schools of the University are accredited or approved by the appropriate professional associations, or are pursuing full professional accreditation or approval. To obtain information about the Specialized Accreditation agencies, their criteria and review process contact the Chairperson/Director of the respective degree program through the Academic Affairs Directory:

www.fiu.edu/provost/aadirectory/colleges.html. The professional accrediting agencies and the respective FIU degree programs are listed in alphabetical order below.

Accounting

International Association for Management Education (AACSB)

Architecture

National Architectural Accrediting Board (NAAB)

Art Museum

American Association of Museums

Business

International Association for Management Education (AACSB)

Chemistry
American Chemical Society
(Certified)

Computer Science
Computer Science Accreditation
Commission

Construction Management
American Council of Construction
Education

Dietetics and Nutrition
American Dietetic Association

Education
National Council for Accreditation
of Teacher Education (NCATE)

Engineering
Accreditation Board for Engineering
and Technology (ABET)

Health Information Systems
American Health Information
Management Association

Health Services Administration
Accrediting Commission on
Education for Health Services
Administration

Journalism and Mass Communication
Accrediting Council on Education in
Journalism and Mass Communica-
tions

Landscape Architecture
Landscape Architecture Accredita-
tion Board (LAAB) of the American
Society of Landscape Architecture
(ASLA)

Medical Laboratory Sciences
National Accrediting Agency for
Clinical Laboratory Sciences

Music
National Association of Schools
of Music

Nursing
Florida Board of Nursing
National League for Nursing

Occupational Therapy
American Occupational Therapy
Association

Parks and Recreation
National Recreation and Parks
Association/American Association
For Leisure and Recreation
(NRPA/AALR)

Physical Therapy
American Physical Therapy
Association

Public Administration
National Association of Schools
of Public Affairs and Administration
(NASPAA)

Public Health
Council on Education for Public
Health

Social Work
Council on Social Work Education

Theatre and Dance
National Association of Schools of
Theatre (NAST)

Southeast Florida Educational Consortium

Florida International University, Broward Community College, and Miami-Dade Community College are charter members of the Southeast Florida Educational Consortium, which was established in 1977. This 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.

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

Academic Programs

School of Architecture

Master of Architecture
Master of Landscape Architecture

College of Arts and Sciences

Master of Arts in:

African-New World Studies
Comparative Sociology
Economics
English
History
International Studies
Latin American and Caribbean Studies
Linguistics
Political Science
Religious Studies
Spanish
Master of Fine Arts in Creative Writing

Master in Music

Master in Music Education

Master of Science in:

Biology
Chemistry
Computer Science
Environmental Studies
Environmental and Urban Systems
(jointly with the College of Engineering and Design)

Forensic Science
Geology
Mathematical Sciences
Psychology
Physics
Statistics

Doctor of Philosophy in:

Biology
Chemistry
Computer Science
Economics
Geology
History
International Relations
Physics
Political Science
Psychology
Comparative Sociology
Spanish

College of Business

Administration

Master of Accounting
Master of Business Administration
Master of International Business
Master of Science in Finance
Master of Science in Management Information Systems
Master of Science in Taxation

Doctor of Philosophy in Business Administration

College of Education

Master of Science in:

Adult Education
Art Education
Counselor Education (*School Counseling and Community Mental Health Counseling*)

Early Childhood Education

Educational Leadership

Elementary Education

English Education

Exercise and Sports Sciences

(Exercise Physiology Track)

Health Occupations Education

Home Economics Education

Human Resource Development

International Development Education

Mathematics Education

Parks and Recreation Management

Physical Education

Reading

Science Education

Social Studies Education

Special Education (*with a track in Varying Exceptionalities*)

Teaching English to Speakers of Other Languages (*TESOL*)

Technology Education

Urban Education

Vocational Education (majors in Administration and Supervision, and Technical and Vocational Industrial Education)

Education Specialist (Ed.S.)

Curriculum and Instruction

Educational Leadership

School Psychology

Doctoral Programs (Ed.D.)

Adult Education and Human

Resource Development

Curriculum and Instruction

Educational Administration and

Supervision

Exceptional Student Education

Higher Education

College of Engineering

Master of Science in:

Biomedical Engineering
Civil Engineering
Computer Engineering
Construction Management
Electrical Engineering
Engineering Management
Environmental Engineering
Environmental and Urban Systems
Industrial Engineering
Mechanical Engineering

Doctor of Philosophy in:

Civil Engineering
Electrical Engineering
Mechanical Engineering

College of Health and

Urban Affairs

Master of Science in:

Criminal Justice
Dietetics and Nutrition
Nursing
Occupational Therapy
Physical Therapy

Master of Health Services

Administration

Master of Public Administration

Master of Public Health

Master of Social Work

Doctor of Philosophy in:

Dietetics and Nutrition
Public Administration
Social Welfare

School of Hospitality

Management

Master of Science in Hotel and

Foodservice Management

School of Journalism and

Mass Communication

Master of Science in Mass

Communication

Biscayne Bay Campus Programs

College of Arts and Sciences

Master of Fine Arts in Creative Writing

Master of Arts in English

Master of Science in Psychology

Doctor of Philosophy in Psychology

College of Education

Master of Science in Urban Education

College of Health and Urban Affairs

Master of Science in Nursing

Master of Health Services

Administration

Master of Public Administration

Master of Public Health

Master of Social Work

Doctor of Philosophy in:

Public Administration (*jointly with FAU*)

Doctor of Philosophy in Social Work

School of Hospitality Management

Master of Science in Hospitality and Tourism Management

School of Journalism and Mass Communication

Master of Science in Mass Communication

Broward County Programs

College of Education

Master of Science in Adult Education (UT)

Master of Science in Human Resource Development (UT)

Courses for Teacher Education (Broward Public Schools)

Courses in Vocational Teacher Education

Doctor of Education in Adult Education and Human Resource Development (UT)

Doctor of Education in Higher Education (UT)

Majors in:

Higher Education Administration and Higher Education Instruction

Doctor of Education in Curriculum and Instruction (UT)

College of Engineering

Master of Science in Construction Management (BC)

College of Health and Urban Affairs

Master of Health Services Administration (UT)

Master of Social Work (UT)

Primary Location:

BC = Broward Programs on BCC

Central Campus - Davie

UT = Askew University Tower - Downtown Fort Lauderdale

Certificates

Certificate Programs are structured combinations of courses with a common base of interest from one or more disciplines into an area of concentration.

Successful completion of a Certificate Program is entered on the student's transcript and records. Two types of certificates are awarded:

Academic Certificate

A graduate academic certificate shall not be awarded to a student who does not possess either a bachelor's degree

or does not complete a bachelor's degree program. A graduate academic certificate is to be interdisciplinary in nature, to the greatest extent possible.

Professional Certificate

Awarded by an academic unit to an individual who completes the appropriate coursework in the area of concentration. The professional certificate does not need to be interdisciplinary or associated with a degree program.

For details and course requirements, refer to the appropriate catalog or section in each College or School.

College of Arts and Sciences

Academic Certificates in:

African-New World Studies
Geographic Information Systems
Latin American and Caribbean Studies

College of Education

Professional Certificates in:

Reading and Language Arts
Specific Learning Disabilities
Emotional Disturbance
Mental Retardation
Health Occupations Education

Academic Certificates in:

School Guidance & Counseling

College of Health and Urban Affairs

Professional Certificates in:

Environmental Health
Justice Administration and Policy Making
Public Management

Academic Certificates in:

Clinical Practice (Post-MSW)
Gerontology
Health Services Administration
Human Resource Policy and Management
Law and Criminal Justice
Nurse Practitioner Certificate
Occupational Therapy

School of Journalism and Mass Communication

Professional Certificates in:

Integrated Communications:
Advertising and Public Relations
Spanish Language Journalism:
Investigative Reporting
Student Media Advising

Evening and Weekend Degree Programs

College of Arts and Sciences

Master of Arts in:

English

Psychology

Spanish

Master of Fine Arts in Creative Writing

Doctor of Philosophy in Geology

College of Business Administration

Master of Accounting

Master of Business Administration

Master of International Business

Master of Science in Finance

Master of Science in Taxation

Doctor of Philosophy in Business Administration

College of Education

Master of Science in:

Adult Education

Art Education

Counselor Education (*School Counseling and Community Mental Health Counseling*)

Early Childhood Education

Educational Leadership

Elementary Education

English Education

Higher Education (*Exercise Physiology Track*)

Health Occupations Education

Home Economics Education

Human Resource Development

International Development Education

Modern Language Education (*majors in Spanish and French*)

Mathematics Education

Music Education

Parks and Recreation Management

Physical Education

Reading

Science Education

Social Studies Education

Special Education (*with a track in Varying Exceptionalities*)

Teaching English to Speakers of Other Languages (*TESOL*)

Technology Education

Urban Education

Vocational Education (*majors in Administration and Supervision, and Technical and Vocational Industrial Education*)

Education Specialist (Ed.S.)

Curriculum and Instruction

Educational Administration and Supervision

School Psychology

Doctoral Programs (Ed.D.)

Adult Education and Human

Resource Development

Curriculum and Instruction

Educational Administration and

Supervision

Exceptional Student Education
Higher Education

College of Engineering

Master of Science in:
Civil Engineering
Computer Engineering
Construction Management
Electrical Engineering
Engineering Management
Industrial Engineering
Mechanical Engineering

College of Health and Urban Affairs

Master of Science in:
Criminal Justice
Dietetics and Nutrition
Medical Laboratory Sciences
Occupational Therapy
Master of Public Health
Master of Social Work

School of Journalism and Mass Communication

Master of Science in Mass
Communication

For more information, call the
appropriate college or school.

Office of Admissions

Florida International University encourages applications from qualified applicants without regard to sex, physical handicap, or cultural, racial, religious or ethnic background or association.

Application Process

Students interested in applying can do so via the following methods:

Florida International University Application for Graduate Admission

FIU uses a common institutional application form for all graduate programs. This application can be requested from the University at University Park, Charles E. Perry Building, Room 140, Miami, Florida 33199 (305) 348-2363.

Online Application

Students with Internet access can apply online by visiting FIU's website at www.fiu.edu/orgs/admiss for applications and instructions.

All credentials and documents submitted to the Office of Admissions become the property of Florida International University. Originals will not be returned to the applicant or forwarded to another institution. A \$20.00 non-refundable application fee (U.S. Dollars) made payable to Florida International University must accompany all forms of application.

Applicants to a graduate program of the University must meet the minimum standards set forth by the Florida Board of Regents (BOR), the University, and when applicable, additional requirements set by each department for admission to a graduate program. Applicants must check the individual departmental requirements.

A student seeking admission into a graduate program of the University must have a bachelor's degree or equivalent from a regionally accredited institution or, in the case of foreign students, an institution recognized as an institution of higher learning. The applicant must submit official copies of all transcripts and test scores to P.O. Box 659003, Miami, FL. 33265-9003.

In most cases, an applicant must, at a minimum, present either a 'B' average in upper level work, or a combined score (on verbal and quantitative) of 1000 on the Graduate Record Exam (GRE) or a score of 500 on the Graduate Management Admission Test

(GMAT) when applicable and required by the individual department, or a graduate degree.

All graduate applicants, regardless of previous grade point average or degrees, are required to submit the appropriate test scores.

An applicant who fails to meet these criteria may appeal the admission decision and be considered under the BOR's Exception Policy. This policy allows up to 10 percent of the graduate students admitted for a particular academic year as exceptions to the above criteria.

Foreign graduate applicants are accepted subject to space and fiscal limitations. In addition to the above University admission requirements, foreign applicants must be academically eligible for further study in their own country and must demonstrate proficiency in the English language by presenting a minimum score of 550 or higher paper-based and a minimum score of 213 computer-based on the Test of English as a Foreign Language (TOEFL), or a minimum of 3 on the Advanced Placement International English Language Examination (APIEL). However, some departments may require a higher TOEFL. Applicants who hold an undergraduate or graduate degree from an institution within the United States or other English speaking countries are not required to submit TOEFL or APIEL. The applicant must check the individual departmental requirements. For TOEFL or APIEL information contact: TOEFL Program, P. O. Box 6151, Princeton, New Jersey 08541, U.S.A.

Readmission

An admitted degree-seeking student who has not enrolled in any course at the University for one full academic year or more is eligible for readmission. The student must meet the University and program regulations in effect at the time of readmission. Students must contact the Office of Admissions to apply for readmission.

Priority Consideration

Due to the additional processing time needed for International Students, plan to submit your application and supporting documents as early as possible. We recommend no later than February 1st if you are applying for Summer semester, April 1st if you are

applying for Fall semester, and September 1st if you are applying for Spring semester.

If the application and documents are not received by the appropriate time, the application for admissions will have to be considered for the following term.

Transfer of Graduate Credit from Other Institutions

Doctoral programs may accept a maximum of 36 semester hours earned elsewhere as a graduate degree-seeking student. A maximum of six semester hours of graduate credit earned from another institution in a non-degree seeking status may be transferred. A maximum of six thesis credit hours may be transferred to a doctoral program only if they are part of an earned degree.

Masters programs may accept a maximum of six semester hours of graduate credit earned from another institution beyond a bachelor's degree.

Acceptance of transfer credits for a course is dependent upon the following provisions:

- the student received a grade of 3.0 or better on a 4.0 scale
- the course was taken at an accredited institution
- the course was relevant, as judged by the admissions committee of the department or program, to the graduate program in which the student is accepted
- the course is listed on an official transcript received by the Office of Admissions
- the course was completed within the six years preceding admission to the program (does not apply to credits earned as part of a completed graduate degree)

International Admissions

Graduate Admission Standards and Procedures

International student applicants must meet the admission requirements of the University as described in the previous sections and comply with the following:

Academic Records

Official transcripts, diplomas and/or certificates must be sent directly from each previous institution to the Office of Admissions. Documents in a language other than English must be

translated by an official translation agency. Notarized translations are not acceptable.

Declaration and Certification of Finances

Upon receipt of the application for admission, the Declaration and Certification of Finances will be mailed to the applicant. It must be completed and returned to the Office of Admissions. A Certificate of Eligibility (Form I-20A) will be issued once the applicant has been found admissible to the University.

The University is required by immigration authorities to check carefully the financial resources of each applicant prior to issuing the Form I-20A. Therefore, it is important that applicants are aware of the cost of attending the University and have the necessary support funds for the period of enrollment. Applicants should refer to the Annual Estimate of Cost Chart.

The total funds available for the student for the first or second academic year, or both, must equal the total estimate of institutional costs and living expenses. All items in the Declaration and Certification of Finances must be accurately answered to avoid unnecessary delay in processing. This document must be received by the Office of Admissions two months prior to the anticipated entry date.

Refer to the Annual Estimate of Cost table for more information. A married student should plan on an additional \$6,000 in costs to cover the living expenses of a spouse.

A couple with children should anticipate further yearly additional costs of no less than \$4,000 for each child.

Medical Insurance

The State of Florida requires that all international students maintain health insurance coverage to help defray the costs in case of catastrophic medical emergency. The policy must provide specific levels of coverage which have been established to ensure that the policy is adequate to provide for costs at U.S. hospitals, usually much higher than costs in many other parts of the world. In addition, a policy must have a claims agent in the United States who may be contacted by medical providers and who facilitates prompt payment of claims. The University has approved a plan which meets the state requirements and which meets the needs of most students; however, a student may

select alternate coverage provided it meets the state requirements for minimal coverage. A copy of these requirements is available from the Office of International Students and Scholar Services. Students are advised not to purchase insurance policies prior to arrival without verifying that the policies meet FIU/SUS requirements. Compliance with the insurance regulation is required prior to registration.

Required Entrance Tests

Graduate applicants are required to take either the GRE or the GMAT. For information on the tests, applicants must contact the 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 applicant's home country.

Tuition

An international student is considered a non-resident and is assessed non-resident fees. Immigration regulations require an international student to attend school each Fall and Spring semesters. A graduate student is required to take a minimum of nine semester hours per term. Please refer to the section on Student Fees and Student Accounts for more information.

Full-Time Enrollment

Non-immigrant alien students in F-1 visa status are required by United States immigration regulations to be enrolled full-time, except for the Summer Terms, and to make satisfactory progress toward the degree program in each term; otherwise the student's immigration status may be jeopardized. Full-time graduate enrollment is defined as enrollment every term for a minimum of nine semester hours.

The laws and regulations of the United States Department of Justice, Immigration and Naturalization Service state:

It is the student's responsibility to comply with all non-immigrant alien requirements as stated under the United States laws under Section 101(a)(15)(f)(i) of the Immigration and Nationality Act.

Granting official Extension of Stay is dependent upon the student's achieving normal academic progress toward the degree requirements.

Employment

The legal regulations governing F-1 student employment are complex, and

advisors are available in the Office of International Students and Scholar Services to explain these regulations. In general, however, employment is available only to students who maintain their legal status in the U.S. and is regulated under three categories:

a) on-campus employment: F-1 students may be employed on the FIU campus for a maximum of 20 hours per week during fall and spring semesters while school is in session, and full time during holidays, vacations, and summer. On-campus employment includes teaching and research assistantships for graduate students and hourly part time work. Students must contact individual campus departments to inquire about employment opportunities.

b) off-campus employment: F-1 students may request off-campus employment under very limited conditions and only after maintaining F-1 status for at least one full academic year. Off-campus employment opportunities are not readily available, and students should not rely on off-campus employment as a source of income to finance their studies.

c) Practical training: F-1 students may request practical training employment to accept jobs related to their studies. Students usually pursue practical training employment after completion of degree requirements, although in some cases practical training may be authorized prior to completion of studies. Since practical training employment is limited to one year of full-time employment, students cannot rely on it as a source of income to finance their studies.

Note: An international student will not be granted admission to the University until all academic and non-academic requirements have been met. Under no circumstances should a student come to the University without having received the official Letter of Admission and the I-20A Form.

All correspondence and document submissions should be directed to: Office of Admissions, Florida International University, PC (Charles E. Perry building) 140, University Park, Miami, Florida 33199 U.S.A.

Credit For Non-College Learning

Graduate credit will not be awarded for life experiences.

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 or her 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 member who represents that specific area of specialization.

Not more than 10 semester hours of a 30 semester hour master's degree, nor 15 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 the Dean.

Traveling Scholar Program

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

Student Right-to-Know Safety and Security Act

Under the Student Right-to-Know and Campus Security Act, Florida International University will, upon request, make available to students and potential students the completion or graduation rates of certificate or full-time degree-seeking students for a one-year period. Also available, upon request, are University policies regarding a) procedures for reporting criminal actions or other emergencies, b) access to campus facilities, c) campus law enforcement, d) crime prevention programs, e) statistics concerning arrests and the occurrence on campus of certain criminal offenses, f) criminal activity of off-campus student organizations, and the use, possession, and sale of illegal drugs or alcohol.

Annual Estimate of Costs for Graduate International Students

Single Student (18 semester hrs)

Tuition and Fees ¹	\$ 10,190
Maintenance ²	\$ 10,190
Books & Supplies	\$ 774
Medical Insurance	\$ 586
Total	\$ 21,740

¹Tuition and fees are subject to change. Fees include the Student Health Fee (\$44 per semester), the Athletic Fee (\$10.00 per semester) and Parking Fees (\$32.62 per semester). Amounts shown reflect 9 semester hours of graduate during Fall and Spring terms only

²Maintenance is estimated at \$1,132.00 per month to cover room, board, clothing, transportation, and incidentals. This cost is for nine months.

³All international students are required to carry medical insurance.

Office of the Registrar

The Office of the Registrar is responsible for directing the University's registration activities, and establishing, maintaining, and releasing students' academic records. The office is also responsible for Space and Scheduling, Enrollment Certification, Veterans Affairs, Graduation, and the Student Academic Support System (SASS). The office also produces the schedule of classes and the University catalogs.

Staff in the Office of the Registrar are responsible for assisting students, faculty, other administrative offices, and the general public; to holding safe and preserving the confidentiality of the students' records; and ensuring the integrity of the University's academic policies and regulations.

The University Park office is located in PC 130, 348-2320, the Biscayne Bay Campus office is located in ACI-100, 919-5750, and the Broward Programs at Broward Community College, Central Campus, (954) 236-1500 and University Tower, (954) 335-5257.

Classification of Students

The University classifies students as follows:

Degree-Seeking Students

This category includes students who have been admitted to a degree program, but have not completed the requirements for the degree.

Graduate - Students admitted to a graduate program.

Post Graduate - Students admitted to a doctoral program.

Non-Degree Seeking Students

These students may be either affiliated or unaffiliated in their status. Unaffiliated students are limited to taking one semester of courses at the University. Affiliated students must be approved by the appropriate College or School and must meet its specific requirements. Under no circumstances may more than 15 hours, taken as a non-degree seeking student, be applied toward graduation requirements at the University, if the student changes from non-degree seeking to degree-seeking status.

The following regulations apply to non-degree seeking students:

1. Such students are not required to meet the usual admission requirements and are not officially admitted as regular students. Enrollment as a non-

degree seeking student does not imply a right for future admission as a regular, degree-seeking student. Credit earned will not be counted toward a degree at the University unless such students subsequently apply for regular admission and are accepted as undergraduate or graduate students.

2. Registration is permitted on a space-available basis and is determined at the time of registration. Non-degree seeking students may not register during the official registration week for degree-seeking students.

3. No more than 12 graduate level semester hours earned as a non-degree seeking student may be counted toward a degree. The appropriate Dean must approve the acceptance of such credit.

4. Non-degree seeking students will not be allowed to register for more than one term without obtaining admission to a degree program at the University, or obtaining admission into a formal certificate program, or acquiring affiliated status from the department in which they are registering.

5. Applicants denied admission to the University will not be allowed to register as non-degree seeking students for a period of one year without obtaining admission into a formal Certificate Program or obtaining affiliated status from the appropriate academic department.

6. Immigration regulations prevent most foreign nationals from enrolling without being admitted into a formal degree or certificate program, depending on the visa type. Therefore, international students will not be permitted to enroll as non-degree seeking students.

Affiliated Students

Students applying for affiliated status as non-degree seeking students must be approved by the appropriate Dean's Office in accordance with criteria approved by that College or School's Faculty Curriculum Committee.

Certificate Students

This category includes students who have been accepted into a specific certificate program by the academic department responsible for that program. Certificate programs are subject to all university regulations.

Academic Degree Requirements

Master's Degree

The University will confer the master's degree when the following conditions have been met:

1. Recommendation of the faculty of the College or the School awarding the degree.

2. Certification by the Dean of the College or the School concerned that all requirements of the degree being sought have been completed.

3. Earned an overall average GPA of 3.0 in all courses.

4. Met the grade requirements for major, core courses, and course sequences established by the appropriate College or School.

Doctoral Degree

The University will confer the doctoral degree when the following conditions have been met:

1. Recommendation of the faculty of the College or School awarding the degree.

2. Completion of the residency and time limitation requirements.

3. Satisfactory completion and defense of a doctoral dissertation.

4. Certification to the Registrar by the Dean of Graduate Studies that all academic requirements have been met.

Academic Definitions

Program and Course Regulations

Credit Hour: The term credit hour 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 coursework in an approved academic discipline or area. The exact course and credit requirements and prerequisites for each major are outlined in the departmental program areas in the catalog.

Electives: Students may select courses from any academic area to complement their area or areas of study or to meet their interests in order to fulfill the credit hour requirements for the master's degree. Prerequisite course requirements should be considered in selecting elective courses. Students should refer to their academic program requirements concerning electives.

Certificate Programs

Students who have completed an approved certificate program will have an appropriate notation placed on their transcript.

College/Major Classification

Graduate students are classified according to the college or school and major of their degree program.

Full-time course load: Graduate, nine semester hours.

Change of College/School or Major

A fully admitted graduate student can change majors, provided he or she meets the entrance requirements of the new program, by submitting a Request for Change of College/School or Major Form. The form and instructions are available in the Office of the Registrar. The student is subject to the program requirements in effect at the time of the change of major.

Registration

The following registration information is subject to change and students must verify the dates with the Office of the Registrar, PC 130, University Park; or ACI-100, Biscayne Bay Campus; or at the Broward Program, BCC Central Campus, (954) 236-1500 and University Tower, (954) 335-5257.

All students, degree and non-degree seeking, registering for more than 18 credit hours during one semester must obtain the approval and the signature of the Dean of their College or School.

Registration for courses is as follows:

Official Registration is held during the preceding semester (check the Academic Calendar for the dates) and ends one week later. Degree-seeking students are given an appointment day and time based on their classification, GPA, and credit hours completed. Students may also add/drop at this time.

Open Registration is held following Official Registration. There is no appointment day and time and registration is on a first-come, first-serve basis. All students who have not yet registered are encouraged to do so at this time. Students who have already registered may also add or drop courses during this period.

Telephone/Web/Kiosk Registration

All students are able to retrieve their grades, registration appointment time and day; classroom assignments; registration holds (if any) and

register/drop/add courses using a touch tone telephone. (305) 348-1500, the World Wide Web (<http://sis.fiu.edu>), or the on-campus kiosks.

Students must obtain their personal identification (PIN) in order to utilize these systems.

Immunization

To register for courses, students, under the age of 40, must provide the University Health Care and Wellness Center, University Park; HM 110, Biscayne Bay Campus, with documentation of immunization against measles and rubella. Students should contact the Health Care and Wellness Center for more information at (305) 348-2401 or (305) 919-5620.

Late Registration Fee

Any student, degree-seeking or non-degree seeking, who initiates registration after the registration deadline is assessed a \$100.00 late registration fee. Students may initiate late registration during the first week of classes.

Dropping and Adding Courses

The Official Drop/Add period runs throughout the first week of classes (check the Academic Calendar for specific dates). During this period a student may drop or add courses without financial penalty or initiate registration with financial penalty (the late registration fee). Students may also drop courses or withdraw from the University with no record of enrollment and without a tuition fee liability. Students may submit a drop/add form to the Office of the Registrar or use the Telephone Registration System, the World Wide Web, or the on-campus kiosks to officially drop a course. If the tuition fee has already been paid, a refund will be issued by the Cashier's Office to the local address on file.

Late Adds

Students may add courses with appropriate authorization and signatures until the end of the third week of classes. No course can be added after this deadline.

Late Drops

Courses officially dropped after the Drop/Add period and through the eighth week of the term (summer terms have different deadlines. Check the Academic Calendar for specific dates) are recorded on the student's transcript with a symbol of 'DR' (dropped). The student is financially liable for all

dropped courses. Students must drop courses using the telephone system (305) 348-1500, the World Wide Web (<http://sis.fiu.edu>), the on-campus kiosks, or in person at the Office of the Registrar. *Non-attendance or non-payment of courses will not constitute a drop.*

A student may appeal the deadline for a late drop by submitting the Appeal to Drop/Withdraw Without Refund form. A drop after the deadline will be approved only in cases where circumstances beyond the student's control make it impossible for the student to continue. The student must provide appropriate documentation. Upon approval of the appeal, the course instructor will designate whether the student was passing or failing the course at the time of the appeal to drop form was submitted. A 'DP' grade indicates the student dropped the class with a passing grade. A 'DF' grade indicates the student dropped the class with a failing grade. The 'DF' grade is calculated in the student's term and cumulative GPA. The deadline to submit appeals is one year after the end of the term in which the course was taken.

Withdrawal from the University

A currently registered student can withdraw from the university only during the first eight weeks of the semester. In the Summer semester, withdrawal deadlines will be adjusted accordingly. A Withdrawal Form must be completed and submitted to the Office of the Registrar. Non-attendance or non-payment of courses will not constitute a withdrawal. (Refer to the Academic Calendar for the deadline dates.)

The transcript of a student who withdraws before or during the first week of classes will contain no record of enrollment and no tuition fee will be assessed. If the tuition has already been paid, a refund will be issued by the Cashier's Office to the local address on file. If a student withdraws from the University prior to the end of the fourth week of classes, a 25 percent refund will be issued.

The transcript of a student who officially withdraws after the Drop/Add period and before the end of the eighth week of the term will receive a 'W1' for each course.

The transcript of a student who stops attending the university without officially withdrawing from the University will receive an 'F' grade for each course.

A student may appeal the deadline for a late withdrawal (from all courses) by submitting the Appeal to Drop/Withdraw Without Refund form. A withdrawal after the deadline will be approved only in cases where circumstances beyond the student's control make it impossible for the student to continue. The student must provide appropriate documentation. Upon approval of the appeal, course instructors will designate whether the student was passing or failing the courses at the time of the appeal to withdraw. A 'WP' grade indicates the student withdrew from classes with a passing grade. A 'WF' grade indicates the student withdrew from the classes with a failing grade. The 'WF' grade is calculated in the student's term and cumulative GPA. The deadline to submit this appeal is one year after the end of the term in which the course was taken.

Grading System

	Grade Points Per Grades	Credit Hour
A		4.00
A-		3.67
B+		3.33
B		3.00
B-		2.67
C+		2.33
C		2.00
C-		1.67
D+		1.33
D		1.00
D-		0.67
F	Failure	0.00
P	Satisfactory (Pass)	N/A
IN	Incomplete ¹	N/A
W	Withdraw by appeal	
WI	Withdraw from University	N/A
WP	Withdraw from University after deadline with passing grade	N/A
WF	Withdraw from University after deadline with failing grade	0.00
AU	Audit	N/A
DR	Dropped Course	N/A
DP	Dropped after deadline with passing grade	N/A
DF	Dropped after deadline with failing grade	0.00
NR	Grade Not Reported or Invalid ²	N/A
EM	Examination	N/A

¹IN is only a temporary symbol. It will revert to the default grade after two consecutive terms.

²NR is only a temporary symbol. It will default to an 'F' after two terms if it is not changed by the instructor.

Note: All courses for which a student is officially registered at the end of the Drop/Add Period and for which a Letter Grade, a 'DF', or a 'WF' is received are calculated in the GPA.

Grading Options

The Colleges and the Schools make the determination of the grading option of each course. A course may be offered for a letter grade as listed above or Pass/Fail; or for an optional grade in which the student has a choice of either receiving a letter grade or pass/fail; or the student may choose to audit a course and an 'AU' grade will be recorded on the student's record. The grading option must be indicated at the time of registration. The grading option cannot be changed after the first week of classes. There are no exceptions to this deadline.

To register for an audit, the student must obtain the permission and signature of the instructor of the course audited. Once the course is registered for as "Audit", the grading option cannot be changed.

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 as quickly as possible but no later than two semesters or it will automatically default to the grade that the student earned in the course. There is no extension of the two semester deadline. The student must not register again for the course to make up the incomplete.

Students who receive an incomplete grade and have applied for graduation at the end of the term, must complete the incomplete by the end of the fourth week of the following term.

Forgiveness Policy

A forgiveness policy is a method by which students may repeat a limited number of courses to improve their grade point average (GPA). Only the grade received on the last repeat is used in the GPA calculation. Under the University's forgiveness policy, students must file a Repeated Course Form with the Office of the Registrar. There is no time limit on the use of the forgiveness policy for grades; however, the forgiveness policy cannot be used once a degree has been posted. All courses taken with the grades earned will be recorded on the student's transcript. The repeated course form

will not be processed if the first or repeated grade received is 'DR', 'DP', 'IF', 'W', 'WI', 'WP', 'AU', 'NR', or 'EM'. Repeated courses will be appropriately designated (T: attempted; R: last repeat).

Graduate students may repeat no more than two courses under this rule with no course being repeated more than once. The course shall be repeated on a letter grade basis. Only the grade and credit received in the second attempt shall be counted in computing the overall GPA. However, the original grade will remain posted on the student's permanent record, but will not be used in computing the overall GPA.

A course taken on a letter grade basis must be repeated on the same basis. Students will not be allowed additional credit or quality points for a repeated course unless the course is specifically designated as repeatable (independent study, studio courses, etc.). Students not using the forgiveness policy may still repeat a course. All attempts will apply to computation of the GPA but credit for one attempt will apply toward graduation. Students must check with the appropriate academic department to determine whether there are additional restrictions on repeating courses.

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 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. Once the student is awarded the departmental credit by examination, an 'EM' grade will be recorded on the transcript.

Change or Correction of Grades

Once submitted, end-of-semester grades (except Incompletes and NR's, which default at the end of two terms) are final. They 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.

Final Examinations

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

Final Grades

Final grades are available over the Telephone Registration System (305-348-1500), the World Wide Web (<http://sis.fiu.edu>), or through the on-campus kiosks.

Application for Graduation

Students who plan to graduate are required to submit to the Office of the Registrar an Application for Graduation form. This form must be submitted before the last day of classes of the academic semester prior to graduation. Students turning in the Application for Graduation after the deadline will graduate the following semester. There is no charge for applying for graduation.

Students who do not graduate must re-apply for graduation and complete the remaining requirements needed for graduation.

Academic Warning, Probation, and Dismissal

Warning

A graduate student whose cumulative GPA falls below a 3.0 (graduate) will be placed on warning, indicating academic difficulty.

Probation

A graduate student on warning whose cumulative GPA falls below 3.0 (graduate) will be placed on probation, indicating serious academic difficulty. The College/School of the student on probation may indicate the conditions which must be met in order to continue enrollment.

Dismissal

A graduate student on probation whose cumulative and semester GPA's fall below a 3.0 will be automatically dismissed from his or her program and the University. A graduate student will not be dismissed prior to attempting a minimum of 12 hours of coursework as a graduate student. The student has ten working days to appeal the dismissal decision. This appeal must be made in writing to the Dean of the College or the School in which the student is admitted. The dismissal from the

University is for a minimum of one year. After one year, the student may apply for readmission (see Readmission) to the University in the same or a different program, or register as a non-degree seeking student.

Dismissed students applying for admission or registering as non-degree seeking students are placed on academic probation.

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. Student academic records are maintained in the Office of the Registrar and in the academic department of the student's major. As a rule, all currently enrolled and former students have the right to review their records to determine their content and accuracy. Parents of dependent students, as defined by the Internal Revenue Code, and who give evidence of the dependent status, have the same rights. For the cost of photocopying, students may generally have copies of any documents in their file, except for other institutions' transcripts.

Release of Student Information from Education Records

The disclosure or publication of student information is governed by policies of Florida International University and the Board of Regents of the State University System of Florida within the framework of State and Federal Laws, including the Family Educational Rights and Privacy Act of 1974, as amended.

A student's consent is required for the disclosure or publication of any information which is a) personally identifiable and b) a part of the educational record. However, certain exceptions to that generality, both in types of information which can be disclosed and in access to that information, are allowed within the regulations of the Family Educational Rights and Privacy Act. The following persons and organizations may have access to personally identifiable information without a student's prior consent:

A. Faculty, administrators, staff and consultants employed by the University or the Board of Regents whose work involves:

1. Performance of administrative tasks which relate to students;

2. Performance of supervisory or instructional tasks which relate to students; or

3. Performance of services which benefit students.

A student's prior consent is not required for disclosure of portions of the educational record defined by the institution as Directory Information. The following Directory Information may be released by the University:

1. Name, local and permanent address and telephone number(s);
2. Date and place of birth, and sex;
3. Classification and major and minor fields of study;
4. Participation in officially recognized activities and sports;
5. Weight and height of members of athletic teams;
6. Dates of attendance, degrees and awards received;
7. The most recent previous educational agency or institution attended by the student; and
8. Photographic image.

The information above, designated by the University as Directory Information, may be released or published by the University without a student's prior written consent unless exception is made in writing by the student or the parents of a dependent student.

In order to prevent access to or release of Directory Information, students or the parents of dependent students, must notify the Registrar (PC 130), in writing prior to the first class meeting day of the semester. Access to, or release of Directory Information will be withheld until further written instruction is received from a student, or the parents of a dependent student.

Students have a right to challenge the accuracy of their educational records and may file written requests to amend these records. The Office of the Registrar (PC 130) may be contacted for further information regarding the procedure to follow for questions or problems.

For complete information regarding the policies outlined above, please contact:

University Registrar
Florida International University
University Park - PC 130
Miami, Florida 33199
e-mail: register@fiu.edu

Student Social Security Numbers

FIU expects all students to have a valid social security number. Enrolled students who do not have one will have

three months to provide the Registrar's Office with proof of a valid social security number. Foreign students are encouraged to apply for a Social Security Number if they plan on working on campus. However, it is not required for enrollment purposes.

Transcripts

The transcript is the complete student record of courses taken at the University, in addition to the number of transfer credits accepted. The GPA is calculated for all courses taken at the University after Fall Term 1975. Once a baccalaureate, master's, or doctorate degree is earned, the GPA recalculation starts again.

Students must request their transcript in writing. There is a 48 hour processing period. The transcript will not be released if the student has a University financial liability and/or a defaulted student loan. There is a \$5.00 charge per transcript.

Class Attendance

The University does not have an attendance policy. However, individual faculty may establish attendance criteria in classes where deemed necessary. Academic units may establish their own attendance policies with the approval of the Provost.

Policy Statement with Reference to Religious Holy Days

A faculty member who wishes to observe a religious holy day shall make arrangements to have another instructor conduct the class in his or her absence, if possible, or shall reschedule the class.

Because there are some classes and other functions where attendance may be considered essential, the following policy is in effect:

1. Each student shall, upon notifying his or her instructor, be excused from class to observe a religious holy day of his or her faith.
2. While the student will be held responsible for the material covered in his or her absence, each student shall be permitted a reasonable amount of time to make up any work missed.
3. No major test, major class event, or major University activity will be scheduled on a major religious holy day.
4. Professors and University administrators shall not arbitrarily penalize students who are absent from

academic or social activities because of religious observances.

Veterans Information

The Office of Veterans Affairs assists all veterans and their dependents who wish to receive VA educational benefits. The Office also provides personal counseling, fee deferments, tutorial assistance, and work-study jobs. The VA Office is located in PC 138, University Park; and in AC1-100, Biscayne Bay Campus.

Veterans who are planning to attend the University should contact the Office of Veterans Affairs two months prior to the date of entry. Such time is required to expedite the processing of paperwork for educational allowances from the Veterans Administration.

Training Status

Full time	9 Credits
3/4 time	7 Credits
1/2 time	5 Credits
Less than 1/2 time	4 Credits

Rate of Payment Number of Dependents

For rate of monthly payment of educational allowances for veterans and dependents, please contact the Office of Veterans Affairs.

For additional information regarding other Veterans Educational Programs, contact the Office of Veterans Affairs at University Park, PC 138, 348-2838.

Enrollment Certification

The Office of the Registrar is responsible for certification of students' enrollment. Certifications cannot be processed if the student has a financial liability.

Enrollment Status - Graduate:

Full time:	9 credits or more.
Half time:	6 - 8 credits.
Less than half time:	5 credits or less.

Enrollment status is for continuous enrollment for the semester in which the student is in attendance. Reduction of course load will reflect the student's status. Contact the Office of the Registrar for further details.

Florida Residency

Information - Florida Student Definition

For the purpose of assessing registration and tuition fees, a student shall be classified as a Florida or non-Florida Resident.

To qualify as a Florida Resident, the student must:

1. Be a U.S. Citizen, Resident Alien, parolee, Cuban National, Vietnamese Refugee, or other legal alien so

designated by the U.S. Immigration and Naturalization Service.

2. Have established a legal residence in this State and have maintained that legal residence for 12 months immediately prior to the start of the term in which the student is seeking Florida resident classification. The student's residence in Florida must be as a bona fide domiciliary rather than for the purpose of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education, and should be demonstrated as indicated below (for dependent students as defined by IRS regulations, a parent or guardian must qualify).

3. Submit the following documentation (or in the case of a dependent student, the parent must submit documentation), prior to the last day of registration for the term for which resident status is sought:
 - a. Documentation establishing legal residence in Florida (this document must be dated at least one year prior to the first day of classes of the term for which Florida resident status is sought). The following documents will be considered in determining legal residence:
 - (1) Declaration of Domicile.
 - (2) Proof of purchase of a home in Florida which the student occupies as his or her residence.
 - (3) Proof that the student has maintained residence in the state for the preceding year (e.g., rent receipts, employment record).
 - b. Documentation establishing bona fide domicile in Florida which is not temporary or merely incident to enrollment in a Florida institution of higher education. The following documents will be considered evidence of domicile even though no one of these criteria, if taken alone, will be considered conclusive evidence of domicile (these documents must be dated at least one year prior to the first day of classes of the term for which resident status is sought):
 - (1) Declaration of Domicile.
 - (2) Florida Voter's registration.
 - (3) Florida Driver's license.
 - (4) Proof of real property ownership in Florida (e.g., deed, tax receipts).
 - (5) Employment records or other employment related documentation (e.g., W-2, paycheck receipts), other than for employment normally provided on a temporary basis to students or other temporary employment.
 - (6) Proof of membership in or affiliation with community or state

organizations or significant connections to the State.

(7) Proof of continuous presence in Florida during the period when not enrolled as a student.

(8) Proof of former domicile in Florida and maintenance of significant connections while absent.

(9) Proof of reliance upon Florida sources of support.

(10) Proof of domicile in Florida of family.

(11) Proof of admission to a licensed practicing profession in Florida.

(12) Proof of acceptance of permanent employment in Florida.

(13) Proof of graduation from high school located in Florida.

(14) Any other factors peculiar to the individual which tend to establish the necessary intent to make Florida a permanent home and that the individual is a bona fide Florida resident, including the age and general circumstances of the individual.

c. No contrary evidence establishing residence elsewhere.

d. Documentation of dependent/independent status (IRS return or affidavit).

A student can also qualify for Florida residency by one or more of the following criteria:

1. Become a legal resident and be married to a person who has been a legal resident for the required 12-month period, or,

2. Be a member of the Armed Forces on active duty stationed in Florida, or a spouse or dependent, or,

3. Be a member of the full-time instructional or administrative staff of a state public school, state community college or state university in Florida, a spouse or dependent, or,

4. Be a dependent and have lived five years with an adult relative who has established legal residence in Florida, or,

5. Be a former student at a public institution of higher education who was properly classified as a resident who re-establishes domiciliary status and re-enrolls within a period of 12 months, or,

6. Make a statement as to the length of residence in Florida and qualification under the above criteria.

Term Courses Are Offered

Listed next to certain courses in this catalog are the designations 'F', 'S', and 'SS'. These designations indicate that the academic department normally offers these courses during the 'F' (Fall), 'S' (Spring), 'SS' (Summer)

terms. Students should be aware that there are circumstances beyond the University's control (low enrollments, financial constraints, or other extenuating situations) which may result in the courses not being offered as indicated. The University is not responsible for failure to offer a course as indicated.

Financial Aid

What is Financial Aid?

Financial aid is a source of financial support provided by various agencies (federal, state and local governments, universities, community organizations, and private corporations or individuals) to help students meet the cost of attending college. It includes gift-aid (grants and scholarships) and self-help aid (loans and student employment).

- Grants are awards based on financial need which do not have to be repaid.
- Scholarships are non-repayable awards based either on merit, special talent and/or financial need.
- Student loans are available to students and/or their parents at low interest rates (5 to 11%).
- Student employment allows students to earn money toward their education by working part time while attending school.

Applying for Assistance

Applications for financial assistance are available in January for the following academic year which begins in August. The Free Application for Federal Student Aid (FAFSA) is the form used to apply for most types of financial assistance. FIU's school code 009635 is required when completing the FAFSA. The FAFSA is available in two forms: electronic and paper. To complete the FAFSA electronically via the internet the web site address is: www.fafsa.ed.gov and the paper form is available from FIU's Financial Aid Office. Financial Aid applications are not reviewed until ALL documents required to complete the file are received in the Financial Aid Office.

Students whose files are completed accurately by the priority deadline of March 1, 2002 will receive priority consideration for limited Federal, State and Institutional funds. Files completed after this deadline will be processed in order of completion date. Most required documents for the file completion are available through the Financial Aid Office web page: www.fiu.edu/~finaid.

Admissions

To be eligible for most financial aid programs, students must be admitted to a degree program. However, students should not wait until they are admitted to apply for assistance. Students who

enroll in qualified Certificate Programs are only eligible for student loans.

Summer Assistance

Student loans are the primary source of assistance for Summer enrollment. Request forms for Summer assistance are available after January 31, 2002.

Eligibility Criteria

To qualify for most need-based financial assistance, students must meet the following basic eligibility requirements:

- demonstrate financial need;
- be a U.S. citizen or eligible non-citizen;
- be registered with Selective Service, if required;
- not be in default on a loan, or owe a repayment on Title IV aid received at any institution;
- be enrolled at least half-time in an eligible program of studies;
- maintain satisfactory academic progress.

Additional requirements may apply depending on the aid programs awarded.

Determining Financial Need

Financial need is defined as the difference between the estimated cost of attendance and the amount students and their families can reasonably be expected to contribute towards their educational expenses. Need analysis is a federally mandated formula which measures, in an equitable and systematic way, how much students and their families can afford towards their higher education. Income, assets (excluding their primary residence), family size, number of family members attending college, and other items are evaluated to give a complete assessment of a family's financial strength.

Awarding Procedures

Award decisions for new students who complete their financial aid application by the priority deadline will be issued by April 15, 2002.

A financial aid package may consist of a combination of grants, loans, and work funds. Other sources of assistance such as merit awards and private and institutional scholarships will be taken into consideration when preparing the award.

Sources of Assistance

The University participates in all Federal and State funded programs. Institutional assistance is available for students with academic promise and financial need.

Graduate Assistance

Graduate students pursuing a master's or doctoral degree may qualify for assistantships/fellowships and other awards offered through individual graduate academic units. To apply, contact the Dean's Office of your college or department. The Financial Aid Office makes a limited number of awards to graduate students who have demonstrated financial need through the Free Application for Federal Student Aid (FAFSA).

Financial Aid Services

- **Financial Aid Counseling:** A Financial Aid Administrator is available without an appointment to assist students with special problems, technical questions, exceptions, etc.
- **Web and Voice System Access:** Students may obtain information on the status of their application through the Financial Aid Office webpage at www.fiu.edu/~finaid or by calling the Financial Aid Office Voice Response System (VRS), 305-348-1500. The student's FIU PIN# is required to access personal information.
- **E-Mail Access:** Students may also communicate with the Financial Aid Office electronically at the following e-mail address: finaid@fiu.edu

For additional information and application materials contact the Financial Aid Office at: University Park, PC 125, Miami, FL 33199

Student Fees and Student Accounts

Fees

Registration and tuition fees are established by the Board of Regents as required by the Florida Legislature. These fees are subject to change without notice. The currently authorized fees for academic year 2001-2002 are:

Per Credit Hour Fees

	Florida Resident	Non-Florida Resident
Undergraduate	\$74.72	\$319.31
Graduate, Thesis or Dissertation	\$151.19	\$529.95

Student Fees

Athletic	\$10.00	\$10.00
Health	\$44.00	\$44.00

Registration fees for course audits are the same as the above fees, except that no assessment will be made for the out-of-state portion.

A schedule of registration and tuition fees for all programs is published prior to each semester and can be obtained at the Office of the Registrar. Since fees often change in the fall semester the above fees should be used for information purposes only. The schedule of classes will contain the most accurate fee information.

Fee Waivers

Students using a fee waiver for part of the fee payment must pay their portion on or before the last day to pay fees. Students who are responsible for a portion of their fees in addition to the fee waiver will be required to pay their portion before the fee waiver is applied.

University and State employees using the State employee fee waiver to pay their fees must register on or after the day established in the official University calendar for State employee registration. The State Employee Fee Waiver pays up to six hours of tuition and fees per term. Summer sessions A, B, and C are considered one term. If the employee registers for more than six hours, they will be required to pay for the additional credit hours plus all per student related fees. A properly completed and approved waiver form must be presented at the Cashier's Office by the date published for the last day to pay fees. Fee Waivers will be processed only for those courses shown on the approved fee waiver request form presented at the time of registration. A course over-ride card will not be accepted with the tuition

waiver program. Only one fee waiver form per employee will be accepted each semester. The State employee fee waiver will not be accepted as payment for course registrations prior to the announced date for state employee registration. State Employee Fee Waivers do not cover Thesis, Dissertation, Internships, Directed Individual Study, Non Credit Courses, Sponsored Credit Programs, Certificate Programs, Field Experience, Practicum, closed courses, or courses taken for audit grades.

Senior citizens fee waivers are available to persons 60 years of age or older who meet the requirements of Florida residency as defined in this catalog. The fee waiver allows qualified individuals to attend credit classes on an audit basis. Senior citizens using the fee waiver must register during the first week of classes. Senior citizens using the fee waiver must pay the photo id fee during their first term in attendance.

Florida law requires that State employee fee waivers and senior citizen fee waivers be granted on a space available basis only; therefore, individuals using these waivers must comply with the procedures outlined in the schedule of classes for each semester.

Refunds will not be processed for employees who have registered and paid prior to the state employee registration day and wish to use the fee waiver.

Fee Payment

Fees may be paid at the Cashier's Office at University Park, PC 120, or at Biscayne Bay Campus ACI 140. Broward students may pay by mail or at the Cashier's Office at University Park or Biscayne Bay Campus. Night drop boxes outside the Cashier's Offices are available 24 hours a day for fee payments by check or money order through the last day to pay fees. Payment is also accepted by mail. The University is not responsible for cash left in the night drop or sent through the mail. Failure to pay fees by the established deadlines will cause all courses to be canceled. See *Fee Liability* below.

Late Registration Fee

Students who register after the established deadline for registration will be subject to \$100 late registration fee.

Late Payment Fee

Students who pay fees after the established deadline for payments will be subject to a \$100 late payment fee. If applicable, this fee may be assessed in addition to the late registration fee described in the preceding section.

Florida Prepaid Tuition Plan Students

All students planning to register under the Florida Prepaid Tuition Plan must present their FPTP identification card to the Bursar's Office, PC 115 on the University Park Campus or at the Cashier's Office ACI 140, on the Biscayne Bay Campus before the published last day to pay fees. The portion of the student fees not covered by the plan must be paid by the student prior to the published last day to pay fees to avoid cancellation of classes.

Financial Aid Students

All financial aid recipients must come to the Cashier's Office and pay the difference between their financial aid or scholarship awards less Federal Work Study and their final fee assessment. The student's schedule will then be automatically validated. Acceptance of a financial aid package constitutes acceptance of the above validation process.

Fee Liability

Students are liable for all fees associated with all courses in which they are registered at the end of the drop/add period. The fee payment deadline is published in the official University calendar. If fees are not paid in full by the published dates, all courses will be canceled and any money paid will be lost.

Registration is not complete until all fees are paid in full.

Repeat Course Tuition Surchage

Repeated Attempts of Courses

The 1997 Legislature passed House Bill 1545 mandates that undergraduate students pay additional charges for the third time a student either takes or attempts a college credit course. Any undergraduate course taken, beginning Fall 1997, and all courses taken after this date will be subject to the repeat surcharge. Attempted hours mean those hours dropped/withdrawn after the drop/add period or failed. Withdrawals, incompletes and dropped courses will be subject to the tuition surcharge, if they are fee-liable. All students are included regardless of type of residency. Undergraduate courses are 1000 to 4000 level courses.

Exceptions:

- Any course work taken prior to Fall 1997
- Credits earned through: cooperative education, military, waivers, audits, individualized study, courses that are repeated as a requirement of a major (except courses repeated more than 2 times to increase GPA or meet minimum course grade requirements), courses intended to continue over multiple semesters
- Attempts taken at previous institutions prior to enrolling at FIU
- Any non fee-liable withdrawal or dropped course
- Graduate level courses (courses at 5000 level or above)
- Effective Summer 2000 Registration, Universities may make exceptions based on extenuating circumstances and financial hardships. Students wishing to appeal the repeat surcharge may complete an "Appeal of Repeat Course Surcharge" form, which may be obtained in the Registrar's Office, PC 130.

Reinstatement of Classes

Appeals for reinstatement of registration for classes canceled for fiscal reasons must be filed in writing on the prescribed form with the Cashier's Office by the time specified on the cancellation notice. Reinstatement will be considered for all classes on the class schedule at the end of the drop/add period. Reinstatement cannot be requested selectively for certain classes. All reinstatement activity, including fee payment, must

be completed by the date on the cancellation notice. All students whose registrations have been reinstated will be assessed a late payment fee. If the late registration fee is applicable it will also be assessed.

Application Fee

A non-refundable fee of \$20 shall accompany each application for admission to the University.

Parking Rules and Regulations

All persons who park vehicles on the university's campuses shall register their vehicle(s) with the department of Parking and Traffic, obtain a decal or permit, and display the decal or permit, as prescribed by the Parking Rules and Regulations. The University assumes no liability for vehicles parked or operated on University property. The issuance of a decal or permit does not guarantee a place to park.

Parking and Traffic Access Fee

All currently enrolled students will pay a Parking and Traffic Access Fee each semester. The fee will appear on the Student Fee Schedule. This fee will be assessed as follows:

Fall Semester	\$27.80 + tax
Spring Semester	\$27.80 + tax
Summer A, B, or C	\$25.40 + tax

Students must provide the following information to the Department of Parking and Traffic to obtain a parking decal: social security number, proof of current class registration, and current vehicle registration. All decals must be permanently affixed to the outside of the vehicle, either on the left side of the rear bumper or lower left corner, on the outside of the rear window. All decals are valid until the expiration date indicated on the decal or permit. A duplicate hang tag will be issued upon request for an additional charge of \$7.50 + tax. This hang tag is valid only for the vehicle under which it is registered. Hang tags are available to persons who have purchased an original decal for the current semester or year. The hang tags are for additionally owned vehicles and for situations where the original decal must be replaced due to an accident, paint job, etc.

Housing

All students in university housing complexes need to obtain a current semester housing sticker from the Department of Parking and Traffic. This sticker allows the vehicle to be parked legally in student housing areas. This sticker is valid for the current

semester only. This housing sticker should be affixed to the left or right side of their current student decal.

Decal Classifications

Faculty/Staff Decals
Student Decals
Housing Sticker
Alumni Decal
Duplicate Decals
Duplicate student hang tag

Disabled

Any person who has been certified in accordance with Sections 320.084, 320.0848, or 320.0842, Florida Statutes, and has been issued a Disabled placard by the Department of Motor Vehicle Bureau shall obtain and display a university parking decal in the classification which would otherwise be appropriate.

Permits

1. The department of Parking and Traffic issues temporary permits to persons who require temporary parking authorization and who otherwise are required by these rules to obtain a decal. Permits must be applied for and are issued for a duration commensurate with its purposes. Permits may or may not include the payment of parking fees.
2. The circumstances under which a permit, rather than a decal shall be issued, include but are not limited to: the use of a temporary vehicle such as a rental car; parking on the university's campuses for attendance at conferences and meetings; and for visitors who are otherwise not required to obtain a decal.
3. Thirty (30), 60 and 90 day permits are available to persons otherwise required by these rules and regulations to obtain a decal.

Towing and Impoundment

The university may tow and impound any vehicle, which is found to be parked illegally or in violation of these rules.

Rules and Regulations Pamphlets

A copy of the University Parking Rules and Regulations is available at the department of Parking and Traffic located at University Park, Parking Garage One or Biscayne Bay Campus, Wolfe University Center, Room 131. It is the responsibility of each student to become familiar and comply with the University's parking and traffic rules and regulations.

Other Fees

Library Fines

Per book per library hour	.25
Maximum fine per book	\$5.00
Lost book fine	\$51.15

Note: These fees are subject to change as permitted by law. Additional fees may be added and special purpose fees may be assessed in some instances.

Checks

The University will accept personal checks for amounts due to the University. These checks must be in the exact amount due only. The Cashier's Office will not accept checks above the amount due, third party checks or checks for cash. State law requires that a service fee be assessed on a check returned unpaid by the bank for any reason. Service fees are based on the amount of the unpaid check. Checks for \$0.01 - \$50.00 are charged a \$25.00 fee; \$50.01 - \$300.00, a \$30.00 fee; \$300.01 - \$800.00, a \$40.00 fee; and a fee of 5% of the amount of the check for all checks greater than \$800.00. Checks returned by the bank can be redeemed only by cash, cashier's checks, or money orders. A personal check will not be accepted to replace a dishonored check.

Returned checks will be assigned to an agency for collection if not promptly paid. When an account has been assigned, the collection agency fee will be added to the University charges for collection at the current contract rate. Returned checks on student accounts will result in cancellation of classes and will require petition for reinstatement. See reinstatement of classes above.

The Cashier's Office will not accept a check on any student's account which has had two previous dishonored checks.

Refunds

Refunds will be processed and mailed to the address shown on the Registrar's files to all students whose fee accounts show an overpayment after the last day to pay fees. Students due a refund will not be required to submit a refund application to receive their refund, it will automatically be calculated. If there is an amount due to the university in the accounts receivable system, that amount will be deducted from any refund due.

Students who have completed registration and have paid all fees due and have completely withdrawn from the University prior to the end of the

fourth week of classes are eligible for a refund of 25% of total fees paid.

In the following exceptional circumstances, a full refund of total fees paid will be made upon presentation of the proper documentation:

- Death of a student or immediate family member (parent, spouse, child or sibling). Death certificate required.
- Involuntary call to military service. Copy of orders required.
- Illness of student of such severity or duration to preclude completion of courses. Confirmation by a physician required.

Processing of refunds will begin after the end of the last day to pay fees.

Appeals for tuition refunds must be submitted in writing to the Office of the Registrar within one year after the end of the term for which the refund is requested. There are no exceptions to this policy.

Past Due Accounts

Delinquent accounts are sufficient cause to prohibit registration, graduation, release of transcripts, or release of diplomas.

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

The University reserves the right to assign any past due account to an agency for collection. When an account has been assigned, the collection agency fee will be added to the University charges for collection at the current contract rate.

Deadlines

Students are reminded that deadlines are strictly enforced. The University is not able to grant credit or to extend the fee payment period beyond the time set in its official calendar. The University does not have the authority to waive late fees unless it has been determined that the University is primarily responsible for the delinquency or that extraordinary circumstances warrant such waiver. The University has no authority to extend deadlines for individual students beyond those set by the official calendar.

Academic Affairs

The Office of Academic Affairs oversees the planning and administration of the instructional programs of the Colleges and Schools of the University. Matters affecting faculty, curriculum, and the development of undergraduate and graduate degree programs fall within its purview. Consequently, both Undergraduate Studies and Graduate Studies report to the Office of Academic Affairs.

This office also supervises academic support programs, such as Information Resource Management, the Libraries, Instructional Media Services, Sponsored Research and Training, FAU/FIU Joint Center for Environmental and Urban Problems, Latin American and Caribbean Center, Institute for Judaic Studies, Institute for Public Policy and Citizenship Studies, The Art Museum, The Wolfsonian, Planning and Institutional Effectiveness, Southeast Florida Center on Aging, and the Women's Studies Center.

Responsible for all the academic units, the chief academic officer is the Provost and Executive Vice President for Academic Affairs. The Provost and Executive Vice President for Academic Affairs also serves as liaison to the Florida Board of Regents for academic matters. As a member of the University Executive Council, the Provost and Executive Vice President leads in the overall academic planning and direction of the University.

(For detailed information on the University's Academic Centers and Institutes, refer to the Centers and Institutes Section.)

Graduate Studies

Douglas Wartzok, Dean

Ruben D. Jaen, Associate Director

The Office of Graduate Studies is under the administration of the Dean of Graduate Studies.

The Graduate Dean is assisted by an Associate Director, who has responsibility for all requests for candidacy certification, assists with minority student recruitment and admission, and also assists the Dean of Graduate Studies in other matters.

The Office of Graduate Studies is responsible for the implementation of the Graduate Student Grievance Policy; the development of and compliance with University graduate policy, procedures and planning; graduate financial aid distribution; University clien-

tele linkages for development support and productivity.

Academic Deans and Department chairs within academic units have the responsibility for detailed operations of all graduate programs.

The Graduate Dean works with the Graduate Council in the formulation of new graduate policies and procedures. The Graduate Council is a subcommittee of the Faculty Senate and consists of members who also represent their respective colleges/schools on the Council. The Graduate Council reviews curriculum changes proposed by academic units and endorsed by the University's Curriculum Committee.

Another committee in the Office of Graduate Studies is the Advisory Committee for Graduate Studies. This Committee makes recommendations to the Graduate Dean on the implementation of graduate policies and procedures on all programs that offer graduate degrees. The Dean of Graduate Studies serves as Chair of this Committee. Generally, the members on this Committee are assistant and associate deans who have responsibility for graduate education in their respective academic units.

The Human Research Committee. Is responsible for approval of the use of human subjects on projects and research conducted by University professors and students. The Committee makes recommendations for fostering University wide research productivity.

Graduate students seeking information on general graduate policies and procedures, or instructions on preparing and filing the thesis or dissertation, should contact the Office of Graduate Studies in PC 236, University Park, or call (305) 348-2455 for an appointment. Internet users are invited to visit our web site located at www.fiu.edu/~gradstud.

Information Resource Management (IRM)

All computing, telecommunications, library, and instructional media services on all Florida International University campuses are under the direction of the Vice Provost and Chief Information Officer. The five major units of Information Resources are: Academic Research and Computing (ARC), the Southeast Regional Data Center (SERDAC), Network, Engi-

neering, and Telecommunications (NET), the FIU Libraries, and Instructional Technology (IT).

Academic Research and Computing (ARC)

Academic Research and Computing (ARC) provides instructional and research computing support to the faculty and students from all FIU academic departments on all campuses. Services of interest to students include: introductory seminars and workshops on the most widely used equipment and software; use of e-mail, Internet and the Web; comprehensive documentation libraries, open popular application software packages, dial-up and open PC labs; a computer store in the Graham Center featuring educational discounts; assistance with remote access to University servers; and peer/professional consultation on various computer-related problems within limits defined by academic departments.

In addition to instructional computing support, the computer support team provides installation, deployment, and upgrade of all desktop applications.

Lab Use: Students are required to have a valid FIU picture ID card to use ARC labs. During the peak periods before midterm and final exams lab hours are extended to meet increased demand; nevertheless, users are advised to complete assignments early. Time limits may be imposed during periods of high demand. Ethical computing practices are enforced. For a recorded message with lab locations and current student lab hours, call 348-2174 for University Park and 919-5600 for North Campus. Please direct other University Park inquiries to 348-2568. For more detailed information, see our home page at: www.fiu.edu/~arc

Part-time Student Employment:

Each semester, University Computer Services employs over 60 part-time student consultants. Although primarily responsible for maintaining a good working environment and flow of users through lab facilities, some consultants work in ARC User Services where they assist in desktop network integration and microcomputer support. They diagnose and resolve system and equipment malfunctions in departments all across the University. Other students teach faculty, staff and peers to use software applications and

computer resources. Exposure to a variety of hardware and software and direct training by ARC professional staff, provides excellent job experience. Students with better than average interpersonal and computer skills are invited to apply for employment at FIU.

Southeast Regional Data Center (SERDAC)

The State University System's Southeast Regional Data Center provides primary academic computing services to Florida International University via an Ethernet network which connects student and faculty workstations to the Data Center's Unix and the RS 6000 complex cluster services.

SERDAC's computers allow convenient access to the Internet and currently provides Internet 2 access. Information on these services may be obtained by calling (305) 348-2284.

Primary operations and dispatch services for faculty, student, and administrative printout are located in University Park, PC 504. Please call (305) 348-2284 for information concerning this facility.

SERDAC offers personal computer/workstation maintenance to the University community. Currently, the SERDAC Maintenance Facility has been designated as a factory-authorized center for IBM, Dell, and Apple personal computers. Please call (305) 348-2284 for information.

Telecommunications

The Network, Engineering, and Telecommunications (NET) is responsible for administering, planning, designing, operating, installing and maintaining of voice, video and data communications systems, equipment and networks that serve the University community. In addition, NET plays an integral part in the design and completion phases of the University's major construction projects and renovations.

NET responsibility for voice communication systems includes planning, managing and developing the University's telephone systems, including 24-hour Operator service, voice mail, feature customization, move/add/change orders and toll charge accounting. Through the data communications and network management services, NET maintains several intercampus data communications networks and operates the University's modem pool for access to FIUnet and the Internet. These services provide

users access to all networked University computing resources and gateways to statewide, national and international telecommunications networks. In addition to providing day-to-day repair and installation of data communications equipment and cabling, the Department supervises the design of communication systems for new construction and renovations at the University.

The Audio Visual Network group, as part of NET, is responsible for maintaining electronic classrooms, providing engineering services for distant learning, distributing equipment and planning/designing audiovisual services. The audiovisual group provides faculty and students with the ability to use computer access to enhance the teaching/learning experience.

Libraries

The University Libraries are housed in the Green Library (GL) at University Park, and in the Library building (LJB) on the North Campus.

The total library collection comprises more than 1,150,000 volumes, in addition to substantial holdings of federal, state, local, and international documents; maps; microforms; music scores; newspapers; institutional archives; and curriculum materials. The Library subscribes to more than 8,650 scholarly journals and other serials. The number of resources available electronically via the World Wide Web continues to increase.

A computerized catalog of library holdings provides a listing of materials in both FIU Libraries, other libraries in the State University System, and throughout the world. 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.

The libraries are open when classes are in session and during vacation periods. For exact library hours, please call (305) 348-2479, consult the posted schedules or LUIS-the library's online catalog-or the library home page at www.fiu.edu/~library. Staff members are always available at the Public Service desks to assist students and faculty in their use of the library.

Consortium Library Privileges

Currently registered students, faculty, and staff may use the libraries of any

other institution in the State University System. For access to libraries in the southeast Florida region, check at the circulation desk concerning SEFLIN library privileges.

A state-of-the-art system of inter-library loan provides links to libraries worldwide.

Instructional Technology

Instructional Technology supports the faculty in the development and production of various forms of technology for instructional purposes.

Instructional Development Center (IDC)

The IDC provides training, facilities and personnel to support faculty in the development of web-based courses and materials. Workshops and one-on-one training in the use of technology empower faculty to develop skills. (GL 120 at University Park (305) 348-3158).

Instructional Photography

Instructional Photography supports faculty by creating both film-based and digitized images which are used in web courses and the digital library. (GL 180 at University Park (305) 348-3158).

Video Broadcast/Production

Video Broadcast/Production provides facilities and personnel to support faculty in the broadcast and production of video. Broadcast services include live interactive classes across three campuses and special educational events to/from worldwide locations via satellite. Video services include design, edit, and production of video for instructional purposes, either in the studio or at remote locations. (GL 141 at University Park (305) 348-2830).

International Studies

A. Douglas Kincaid, *Vice Provost for International Studies*

The Office of International Studies (OIS) is responsible for the development and coordination of international programs and activities at the University. OIS staff members work with students and faculty who are interested in participating in international exchange, study abroad programs, and other international academic opportunities. OIS assists with the development of agreements with foreign universities to extend the range of opportunities for students and faculty. In addition, the office advises students and faculty on the availability

of Fulbright Grants, and other international scholarship opportunities.

OIS facilitates the University's interaction with local and international interest groups, serves as a liaison with universities and visitors from abroad, and promotes the international mission of the university. For more information on the services offered by OIS located in DM 300B, call (305) 348-1913, email: intered@fiu.edu or <http://intered.fiu.edu>.

International Student Exchange Program

The International Student Exchange (ISE) Program provides students with the opportunity to study abroad (during one or two semesters) at one of the various universities that have an agreement with Florida International University. Full credit is given for work satisfactorily completed during the exchange program - as long as it has been pre-approved by an advisor. Grades are not transferred. ISE offers the opportunity to live abroad, explore other languages and cultures, and become acquainted with new friends from all over the world. Students will be required to pay their normal FIU tuition, insurance, housing, and travel arrangements.

In order to participate in ISE, a student must be enrolled at FIU and have a 3.0 cumulative GPA. For further information, contact the Office of International Studies, University Park, DM 300, Miami, Florida 33199, (305) 348-1913. You can also email the office at intered@fiu.edu.

Study Abroad Programs

During the Summer semester FIU offers a number of Study Abroad Programs in coordination with different academic units, the Office of International Studies, and University Outreach. These programs are under the direction of FIU faculty members who accompany the students abroad. Students receive credit for these programs. Each year FIU offers different opportunities and a variety of countries. Program locations include: Brazil, China, Spain, England, Ireland, Czech Republic, Germany, Italy, Japan, and others. The Honors College also offers programs in Italy and Spain. For more information contact the Office of International Studies at (305) 348-1913, email intered@fiu.edu or <http://intered.fiu.edu>.

Planning and Institutional Effectiveness

Daniel Coleman, *Vice Provost and Director*

David Hall, *Assistant Director*
Marta Perez, *Assistant Director*

The Office of Planning and Institutional Effectiveness provides statistical information to support decision making processes within all academic and administrative units of Florida International University, the Board of Regents, and external agencies.

The Office of Planning and Institutional Effectiveness provides the official University statistics. This office publishes research reports that provide statistical information about the university on a regular basis. The Office of Planning and Institutional Effectiveness also provides information requested by the University community and external agencies on an ad hoc basis. The coordination and submission of surveys from external constituencies is also coordinated by this office. All questionnaires or surveys developed by faculty or staff which are designed to collect data about the operations of the University, students or employees must be coordinated through this office. For more information about this office and its services, call (305) 348-2731.

Sponsored Research and Training

Thomas A. Breslin, *Vice President*
Catherine F. Thurman, *Director*

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 manage contract and grant programs for the University. For more information, contact (305) 348-2494. The web page address is: www.dsrt.fiu.edu.

The Art Museum

Dahlia Morgan, *Director*
Regina Bailey, *Associate Director*

The Art Museum at Florida International University has served the South Florida community for over 20 years presenting exhibition and art lectures of local, national and international importance. Exhibitions include student shows, self-curated exhibitions from both the University's collections and from institutions and organizations outside the University, and national traveling shows. The Art Museum is accredited by the American Association of Museums and is an affiliate of the Smithsonian Institution. It has also been recognized for its excellence by the grants it has received, most recently the National Endowment for the Arts; The Institute for Museum and Library Services; The Florida Humanities Council; Miami-Dade County Cultural Affairs Council; Florida Department of State, Division of Cultural Affairs. The Art Museum is designated as a major culture institution by the State of Florida.

The Art Museum serves Miami's multi-cultural community year round, free of charge. The Museum is home to Coral Gables' Metropolitan Museum and Art Center Collection, The Cintas Foundation of Contemporary Hispanic Art, a permanent collection of works by North and South American and Florida artists, and the site of the Martin Z. Margulies Sculpture Park. One of the world's most important international outdoor sculpture collections includes works by Calder, De Kooning, Ricky, Nevelson, Serra, and other well-known artists.

The Art Museum provides a unique experience to a very broad audience including children, students, teachers, senior citizens, minorities and the disabled. Besides serving two campuses and two centers, its programs extend to surrounding counties outside of Dade including Broward, Palm Beach and Monroe Counties.

The Art Museum, which occupies a 5,000 square foot area on the University Park campus, opened with an internationally acclaimed exhibition, *Contemporary Latin American Drawings*, in April, 1977. Since then, many important exhibitions have been presented, including: *Alberto Giacometti, Draftsman and Sculptor*; *Mira, Mira, Mira: Los Cubanos de Miami*; *Adolph Gottlieb: Paintings and Works on Paper*; *Marcel Duchamp; Louise Bourgeois; The Phillips*

Collection in the Making: 1920 - 1930; Imagenes Liricas: New Spanish Visions; CUBA-USA: The First Generation; Jose Bedia; Agustin Fernandez: A Retrospective; Miro/Noguchi; and most recently, Modernism and Abstraction: Treasures from the Smithsonian American Art Museum. The annual *American Art Today* series has featured contemporary artists exploring traditional themes including *Still Life, The Figure in the Landscape, The Portrait, Narrative Painting, The City Surface Tension, Clothing as Metaphor Images from Abroad and the Garden, and Fantasies and Curiosities.*

The Art Museum has continued to enhance its exhibitions with the *Critics' Lecture Series*, which has included many of the exhibiting artists, scholars, museum curators and art historians, including: Susan Sontag, Robert Hughes, Hilton Kramer, Michael Graves, Peter Plagens, Tom Wolfe, Germaine Greer, Dore Ashton, Carlos Fuentes, Michael Brenson, Frank Stella, Richard Serra, Helen Frankenthaler, Kirk Varnedoe, Lowery Sims, Michael Kimmelman, and Anne d'Hamoncourt.

The museum is located in PC 110. For further information on the museum and its programs contact the museum at 305-348-2890 or visit the website www.fiu.edu/~museum.

Transnational and Comparative Studies (TCS)

Ralph S. Clem, *Director*
Steven Heine, *Associate Director*

The Center for Transnational and Comparative Studies (TCS) at Florida International University was created in response to the increasing importance of recent social and economic transformations usually referred to as "globalization." This process involves a relative decline in the influence of states and the commensurate rise in the importance of non-state and transnational actors, as well as very high speed linkages among financial markets, media, and personal communications. Globalization requires us to rethink traditional academic international relations and area studies modalities and to formulate new curricular and scholarly paradigms. TCS is located in University Park, DM-368. Phone: (305) 348-6561; Fax: (305) 348-6562. For more information contact Dr. Ralph Clem at clemr@fiu.edu or Dr. Steven Heine at

heines@fiu.edu or tcs@fiu.edu or www.fiu.edu/~tcs.

Curricular Programs

The mission of the Center for Transnational and Comparative Studies is to enhance undergraduate and graduate certificate programs in international studies. TCS works with area studies programs outside of the long-established Latin American and Caribbean Center (LACC) in order to augment curriculum that explores lesser studied regions at FIU. TCS currently houses the Institute for Asian Studies, European Studies, and The Judaic and Near Eastern Studies. TCS supports the development of more diverse area studies as well as trans-regional programs, and has developed a new multidisciplinary, multidisciplinary certificate program in Transnational and Regional Studies at the graduate level.

Institute for Asian Studies

TCS houses the Institute for Asian Studies which coordinates all academic, study abroad, and outreach activities related to Asia within Florida International University and offers two graduate certificate programs: one in Asian Studies and the other in Asian Globalization and Latin America. These programs are designed to offer a competitive advantage to students who study Asia and its role on the global stage from social science, humanities, or business perspectives. Asian Studies is located in DM 366A, University Park. Phone: (305) 348-1914; Fax: (305) 348-6586. For more information contact Dr. Steven Heine, Director, at heines@fiu.edu or www.fiu.edu/~asian

Other Transnational Programs

TCS also houses three other transnational or regional studies programs, including the Institute for Judaic and Near Eastern Studies, which administers a certificate in Jewish Studies; the European Studies which offers an undergraduate certificate; and the Working Group for Pre-Modern Histories and Cultures which offers a certificate program. In addition, TCS coordinates the Global CityScapes Project and the Foreign Policy Lecture Series, among other ongoing activities such as the South Florida Consortium for Asian Arts and Culture, which is run by the Institute for Asian Studies, and the TIRES grant affiliated with European Studies.

Business and Finance

The Division of Business & Finance comprises the offices of Administrative Services, Business Services, Parking and Traffic, Budget Planning, Controller's, Environmental Health and Safety, Equal Opportunity Programs, Facilities Management, Human Resources, Business and Finance Biscayne Bay Campus, Public Safety and Purchasing.

Auxiliary Services

Auxiliary Services supervises the bookstore and food services operations on both University Park and the Biscayne Bay Campus, which includes the Cafeteria, Gracie's Grill and all vending operations.

Auxiliary Services also oversees the operations of Duplicating Services, which includes a Print Shop, Convenience Copiers and a Total Copy Reproduction Center. The unit offices are housed in Duplicating Services, DC 100 at University Park 348-2831 and ACI 148 on the Biscayne Bay Campus 919-5660

Controller's Office

This area is primarily responsible for maintaining accounting records, controlling budgets, coordinating financial activities and reporting on financial data. Typical functions of the Controller's Office are the payment of invoices to vendors, collection of fees and other revenues, contract and grant accounting, payroll, disbursement and collection of student loans and the reconciliation of accounting ledgers.

The Controller's Office is a service oriented unit assisting the University community in most aspects of financial operations. Questions concerning the use of State funds, internal control procedures or methods to pay a vendor or employee are normally addressed to this unit. Guidance is provided to travelers pertaining to the State requirements for the reimbursement of traveling expenses. Assistance is provided to employees in the interpretation of accounting ledgers and fiscal reports.

The following sections operate within the Controller's Office: General Accounting, Accounts Payable, Travel, Construction and Property Accounting, Contracts and Grants, Disbursement, Student Loan and Accounts Receivable, Payroll, and the Cashier's Office at all campuses.

Environmental Health and Safety

The Department of Environmental Health & Safety & Risk Management Services provides the leadership and direction necessary to assure identification, implementation and effective administration of programs designed to promote hazard recognition, avoidance, reporting and control, as well as compliance with various federal, state and local safety regulations.

In addition to programs necessary for regulatory compliance, the department takes a proactive approach on many issues. Among the programs and activities managed by the department are: investigation and initial processing of liability claims against the University; review of risk management concerns related to special events planned by student organizations and University employees and presentations to student groups; indoor air quality investigations; and management of the Dive Safety Office. The DSO monitors and supports scientific diving.

The primary component of the department's mission is service. This mission is accomplished by working in close coordination and cooperation with other departments and the University community in general. At University Park, the department is located at CSC 162, 348-2621/2622. Services are provided at the Biscayne Bay Campus from the Facilities Operations complex, S01 115, 919-5225.

Equal Opportunity Programs

This office provides leadership and direction in the administration of the University's equalization programs for women and minorities in several ways. It prepares the University's annual Affirmative Action Plan and the State Equity Accountability Plan, assists University units in implementing and monitoring affirmative action procedures; provides oversight to the University Diversity Program; provides a channel for employee and student grievances regarding discrimination, or issues indicating a need for additional affirmative actions; administers implementation of the Policy to Prohibit Sexual Harassment; coordinates University compliance with the

Americans with Disabilities Act and with Title IX of the Education Amendments of 1972, and promotes effective relationships between the University and community organizations. Equal Opportunity Programs also administers the State University System's scholarship programs funded for the purpose of increasing minority enrollment. In addition, the Office maintains a liaison relationship with State and Federal agencies dealing with EEO and affirmative action. The Office is located at University Park, PC 511, (305) 348-2785.

Americans with Disabilities Act (ADA)

The Director for Equal Opportunity Programs is the University's ADA Coordinator, and has responsibility for ensuring access to employment, academic and public programs for persons with disabilities. The Office administers a central budget used to fund the costs of reasonable accommodations for University employees and applicants for employment. The office also works closely with the Office of Disability Services for Students in the provision of auxiliary aids and services to ensure access to academic programs, and with all University offices in the provision of access to University public events.

HIV/AIDS Policy

Students and employees of the University who may become infected with the HIV/AIDS virus will not be excluded from enrollment or employment or restricted in their access to University services or facilities, unless individual medically-based judgments establish that exclusion or restriction is necessary to the welfare of the individual or to other members of the University community. The University has established an HIV/AIDS Committee which includes representatives from major University divisions and other staff as appropriate. The Committee, which meets regularly, is responsible for monitoring developments with regard to HIV/AIDS, acting upon and administering the University's Policy on HIV/AIDS in specific cases, and coordinating the University's efforts in educating the University community on the nature of the disease. In addition, the Committee will meet as needed to consider individual occurrences of the

disease which require University action.

Persons who know or suspect they are sero-positive are expected to seek expert medical advice and are obligated, ethically and legally, to conduct themselves responsibly for the protection of others.

The University has designated HIV/AIDS counselors who are available to provide further information on this subject. Contact one of the following offices at University Park, Director for Equal Opportunity Programs, PC 511; Counseling Services, GC 340; and Student Health Services, OE 115. Biscayne Bay Campus contact, Counseling Services, WUC 261 or the Health & Wellness Center Biscayne Bay Campus.

Sexual Harassment Nondiscrimination Educational Equity

All members of the University Community are entitled to study and work in an atmosphere free from illegal discrimination. Florida International University's equal opportunity policy prohibits discrimination against students and employees on the basis of their race, color, creed, age, disability, sex (including sexual harassment), religion, marital status, or national origin. Under the policy, it does not matter whether the discrimination was intended or not; the focus is on whether students or employees have been treated differently or subjected to intimidation, or a hostile or offensive environment as a result of their belonging to a protected class or having a protected status. Illegal sexual harassment includes un-welcome physical contact of a sexual nature, overt or implied threats to induce performance of sexual favors, verbal harassment, use of sexually suggestive terms, or display or posting of sexually offensive pictures.

Any employee, applicant, or student who believes that he or she may be a victim of unlawful discrimination may file a complaint with the Office of Equal Opportunity Programs, PC 511 at University Park (348-2785) in accordance with this procedure.

Facilities Management

Facilities Management provides professional support to planning, designing, construction, maintenance, and operations of facilities on all campuses, to accommodate all aspects of the University mission as defined in the Campus

Master Plan. This department is separated into three major areas of supervision which are Facilities Development, Facilities Operations and Utilities Support Services.

Facilities Development is responsible for all design and construction projects. These activities include building programs, design coordination, construction administration and occupancy coordination.

Facilities Operations is responsible for the operations and logistics of physical resources including building and grounds maintenance, custodial, landscaping, roads and parking lots.

For routine and emergency maintenance services, please contact the Customer Service Center at 348-4600 at University Park and 919-5700 at Biscayne Bay Campus.

Utilities Support Services oversees the University's utility systems including air conditioning, water, sewage, electrical power and solid waste management. In addition, Utilities Support Services works together with Environmental Health & Safety to assure that all toxic (biological or chemical) wastes are disposed of properly.

Human Resources

The Office of Human Resources provides human resource management services for staff members and employees of all academic and administrative departments including student employees, research or graduate assistants, college work study and OPS employees on all campuses. All services provided by the office are in compliance with applicable federal and state regulations, and include six major human resources areas—Employment/Recruitment, Compensation/Classification, Employee Professional Development Programs, Employee Benefits, Personnel Records and Workers' Compensation, Employee and Labor Relations.

The University Park office is located in PC 224, 348-2181; the Biscayne Bay Campus office is located at 322-A Library Building, 919-5545.

Public Safety

Public Safety is a full service law enforcement organization dedicated to assuring an environment conducive to living and learning in a University community. The department's members include Law Enforcement Officers who are fully certified and sworn, and

have full police authority to enforce state, local and University regulations.

Purchasing Services

Purchasing Services is organized to support students, the instructional and research efforts of the faculty, staff, and all University departments. Purchasing involves the acquisition of equipment, furnishings, supplies, construction services, preventive maintenance services, contractual services, and lease of space for the University.

Purchasing Services is responsible for a number of functions in addition to the primary function of centralized university purchasing. These other functions include Central Stores, Central Receiving, Property Control, Surplus Property and Campus Mail.

The office is located at University Park, CSC 410 and can be reached at 348-2161.

University Budget and Planning

University Budget and Planning is responsible for the development of all operating budgets in all budget entities, including capital programs, legislative budget requests, operating budget requests and internal operating budget plan. The annual operating budget for the University is published by the office and the charts and graphs are reproduced on the website maintained by the office. A major responsibility includes the monitoring of budgets throughout the year to ensure that budgets by category are not exceeded. The office works closely with and monitors the auxiliary enterprises of the University to ensure compliance with policies and that a strategic direction is followed. The office also has responsibility for University planning, including long range planning. Planning involves working closely with the Executive Council, which is the long range (strategic) planning body for the University, in terms of the long range vision and goals of the University, both in relation to the operating (budget) and facilities (PECO) needs. The office is located in PC 522 and can be reached at 348-2104.

Biscayne Bay Campus

Biscayne Bay Campus

The Biscayne Bay Campus of Florida International University is located on 200 acres on the waterfront of Biscayne Bay and has an enrollment in excess of 8000 students. Academic programs in Hospitality Management, Journalism and Mass Communication, and Nursing are headquartered on the Biscayne Bay Campus. Programs in Arts and Sciences, Business Administration, Education, and Health and Urban Affairs are also offered (for specific degree programs please refer to relevant pages in this catalog).

The Biscayne Bay Campus is also the hub of the University's Continuing Education and outreach efforts. It serves as host to the Institute For Life Long Learning, the HRS-Children and Families Professional Development Centre, the Institute of Government, the Institute for Public Opinion Research, Center on Aging, and the Roz and Cal Kovens Conference Center. The Kovens Conference Center is a high-tech, state-of-the-art conference facility located on the waterfront of Biscayne Bay. The center provisions include distinct meeting rooms, seminar rooms, ballrooms with a bay view, and computer labs. All of which are equipped with the latest in teleconferencing, web-casting, Internet-multi-casting, videoconferencing, and large-scale multi-media presentation capabilities.

Students attending the Biscayne Bay Campus will find eight state-of-the-art computer labs available to them located throughout the campus complex each having full Internet access, and multi-media capability. Also, students will find that many of their courses will be taught in advanced multi-media capable classrooms as part of their learning process. The Biscayne Bay Campus Library occupies 57,000 square feet of space, and has a seating capacity of 600. It is a Federal and Florida State Government Document Depository. The Library has its own local area network for computing services and CD-ROM data base access, and also serves as the focus point for the FIU Libraries PantherNet, a prototype remote dial-in system that allows telephone access to CD-ROMs, electronic journals, electronic reserves, library publications and provides support for Distance Learning. The Library also houses several student

computer facilities, and computer resource learning centers.

Apartment style residential housing on the Biscayne Bay Campus accommodates 276 students. Student life is enhanced through the provision of programs and services offered in the Wolfe University Center through Student Affairs, which is the focal point of social and cultural activity outside of the classroom. The Wolfe Center houses the cafeteria, bookstore, fitness center, computer lab, postal facility, duplicating center, automatic banking facilities, University Credit Union, meeting rooms and ballrooms, 300-seat auditorium and theater, Student Government Offices, Student Development Offices, Recreational Sports, Career Services, Disability Services, International Student Services, Minority Student Services, Orientation, Student Activities, Student Counseling, Victim Advocacy, Volunteer Action Center and the Women's Center. The campus also provides a Student Health and Wellness Center adjacent to the Library.

Students may apply for admission and financial aid, register for courses, and obtain academic advising on the premises of the Biscayne Bay Campus.

The Campus is administered by the Office of the Vice Provost of Biscayne Bay Campus. This office is located on the Third Floor of the Library. Representatives from the Divisions of Academic Affairs, Business and Finance, Student Affairs, Human Resources, and University Relations are also located in these offices. Coordination with other university divisions and the University Park Campus are facilitated through Office of the Vice Provost and Academic Affairs on the Biscayne Bay Campus.

University Advancement and Marketing

The Division of University Advancement and Marketing coordinates the University's private fund-raising efforts and marketing/public relations activities. The offices of Development, Administration and Operations, and Alumni Relations and Annual Giving generate support for FIU from alumni and friends in South Florida and beyond. The offices of Communications, Community Relations, Interactive Media, Marketing, Media Relations and Publications coordinate FIU's major marketing and public relations activities.

Administration and Operations

Administration and Operations manages administrative functions of the division as well as activities fundamental to fund raising, including donor research, gift processing and acknowledgement, and campaign planning.

Alumni Relations and Annual Giving

Alumni Relations and Annual Giving offers a variety of programs and services to the University's nearly 90,000 graduates and serves as a liaison to the membership-based FIU Alumni Association, which it assists in producing several signature events throughout the year. The unit also conducts the University's annual giving fund-raising drive with the alumni body. The office welcomes all graduates and guests to FIU and encourages student involvement in its student chapter and at various events. Visit the office at PC 234 (University Park) or call 1-800-FIU-ALUM.

Communications

Communications manages and develops the editorial content of a variety of publications and other media, including the *FIU Magazine*, *FIU Newsletter*, *This Week@FIU* and the upper levels of the University web site. These media inform key publics, including alumni, donor, public officials, students, faculty and staff. The office also provides other public relations and editorial services to the University.

Community Relations

Community Relations strengthens ties between FIU and the community by planning and coordinating major University events. The office also assists in hosting visiting dignitaries, helps other units implement events and oversees FIU's participation in community activities.

Development

The University's fund-raising arm solicits private gifts from a variety of sources, including individuals, corporations and private foundations. Development staff collaborate with University administrators and faculty as well as the Board of Trustees of the FIU Foundation and other volunteers on specific fund-raising efforts. In 2001, FIU completed its first major fund-raising effort, The Campaign for FIU. The \$200 million drive made scholarships possible for needy students, eminent scholars chairs that help attract top research faculty, buildings such as the Herbert and Nicole Wertheim Performing Arts Center at University Park and the Southern Wine & Spirits Beverage Management Center on the Biscayne Bay Campus, and new programs in units such as the Department of Religious Studies, the College of Business Administration, and numerous others.

Interactive Design

Interactive Design enhances the online and offline identity of FIU through the use of advanced computer graphics and electronic multimedia. The office creates websites, flash animations, virtual reality tours, 3D graphics and other products using cutting-edge technologies.

Marketing

Marketing seeks sponsorships for and offers promotional assistance to a variety of FIU cultural organizations and events, including the School of Music Festival and the School of Hospitality Management Florida Extravaganza. Additionally, the staff solicits funding for and produces the annual FIU Miami Film Festival, handles licensing contracts, and assists the Department of Athletics and Recreation in building financial

support for Golden Panther football and other programs.

Media Relations

Marketing & Media Relations works with all forms of local, national and international news media to promote FIU's image, academic programs, research activities, cultural initiatives and special events. The office helps coordinate marketing of academic programs, special events and the University itself. The office is responsible for the www.news.fiu.edu web site and produces a weekly public affairs show, *FIU In View*, broadcast by WLRN-TV.

Publications

Publications produces effective and informative publications designed to advance the University's marketing initiatives. The office provides a variety of services including marketing, concept development, design, editorial, and print production. The office produces University publications, advertisements and collaterals for recruitment, fund raising and institutional advancement.

Student Affairs

The Division of Student Affairs seeks to educate a diverse body of students by supporting their personal and academic growth. We promote cross-cultural outreach and understanding, create an environment which fosters the development of the 'whole' student, promote cultural learning and pluralism, provide programs and services which enhance intellectual, social, cultural, physical, emotional, and spiritual development, support civic awareness and service learning, and prepare students to become contributing members of the community.

The following are Student Affairs departments and programs:

Campus Life

The Department of Campus Life provides learning communities that expose students to diversity of ideas and experiences and develop the following skills: leadership, communication, problem-solving, program planning, organization, implementation, evaluation, and most importantly, *Get Involved on Campus*. Campus Life activities are co-curricular and cover all aspects of the educational experiences and personal growth of students. Over 150 registered organizations exist to enrich campus life and contribute to the social, cultural, and academic growth of students. Activities such as multicultural theme months, dances, parties, movies, athletic events and pep rallies, community service, alternative spring breaks, concerts, comedy shows, and the lecture series, are a few of the fun and educational programs offered through the department. Students may form additional organizations and clubs that promote the University's educational mission and the development of one's personal attributes.

The Department of Campus Life includes the Student Government Association, Student Organizations Council, Student Programming Council, Residence Hall Association, Honors Council, Greek Organizations, Campus Ministry, and the Graduate Student Association.

Location: GC 340, University Park, (305) 348-2138; WUC 363, Biscayne Bay Campus, (305) 919-5804; LA, Room 203, Davie, (954) 236-1518; University Tower, Room 305, Fort Lauderdale (954) 355-5279.

Children's Creative Learning Center

The Children's Creative Learning Center at FIU is an Educational Research Center for Child Development. The Center is a department of the Division of Student Affairs.

The Center offers a full day educational preschool program to children between the ages of two years and six months (toilet trained) through five years. The program is designed to meet the needs of children Monday through Friday, from 7:45 a.m. to 6:00 p.m., with pick-up at 12:00 p.m. or after 3:30 p.m.

Since the inception in 1975, this model program has become well known for providing appropriate hands on experiences for children of students, faculty, staff, alumni, and the neighboring community. Enrollment priority is given to children of students.

Children are viewed as individuals. Each child is encouraged to develop socially, emotionally, physically, cognitively, and intellectually at his/her own rate of growth. Working toward their maximum potential, the children are nurtured by being exposed to the many content areas the teachers offer such as: art, music, movement, science, cooking, dramatic play, and outdoor play. Language and literacy, pre-math, and developmental tasks along with hands on experiences of educational concepts to convey awareness of the world around us are included. A creative atmosphere exists where educational concepts are introduced as hands on experiences and through different areas around the classroom. Through these real life experiences, the children make sense of their world.

Parent involvement is a high priority at the Center. Parents are an integral part of the community by making a commitment to engage in meaningful experiences with their children. This enriches the children's experiences and supports family relationships. Parent workshops are offered as well as family gatherings.

For more information or to receive a copy of the Center's brochure and request for admission, please call (305) 348-2143.

Greek Life

Greek Organizations contribute to the University by promoting leadership, scholarship, service, social activities and brotherhood and sisterhood. An Interfraternity Council governs men's fraternities, a National Pan-Hellenic Council governs historically African-American fraternities and sororities, and the Panhellenic Council governs women's fraternities and sororities. The Order of Omega is the honorary leadership society of fraternities and sororities that promotes leadership and scholarship among Greeks. Formal recruitment periods are held each Fall semester. However, many fraternities have informal recruitment events year round.

Location: GC 316, University Park, (305) 348-1293 or (305) 348-2138

Student Government Association

The Student Government Association is comprised of representatives from all Schools and Colleges who are elected by the student body. There is a Student Government Council at both the Biscayne Bay Campus and University Park. SGA is responsible for overseeing and appropriating the Activity and Service (A&S) fees paid by all students each semester. These fees fund many of the campus life events, student activities, and clubs and organizations. SGA also acts as the liaison between the students and administrative areas of the University, specifically speaking, and lobbying on behalf of students.

SGA members represent the student body on University-wide committees and task forces to ensure student representation at the administrative level. SGA meets regularly and students are highly encouraged to attend meetings and become involved in all aspects of Student Government.

Location: GC 311, University Park, (305) 348-2121; WUC 363, Biscayne Bay Campus, (305) 919-5680; LA, Room 203, Davie, (954) 236-1518; University Tower, Room 506, Fort Lauderdale, (954) 355-5279.

Volunteer Action Center

The Volunteer Action Center is the central office for community service, service learning, and volunteer activities on and off campus. The center encourages students to realize their potential to impact their community and effect social change through the power of service-learning, advocacy, and volunteerism. VAC organizes monthly volunteer projects, alternative break programs, and serves as a clearing house for volunteer opportunities.

Location: GC 340, University Park, (305) 348-2149.

Campus Ministry

The Interfaith Campus Ministry serves student groups involved in a variety of activities. Professional representatives from various faiths are available for personal appointments. Individual denominations sponsor campus-wide programs including worship, study groups, social gatherings, and cultural events. Campus Ministry sponsors programs and activities which are non-denominational.

Location: TC 112, University Park, (305) 348-3902; WUC 265, Biscayne Bay Campus, (305) 919-5247.

Career Services

Career Services (CS) is a student's "Partner for Career Success." The Office assists registered students with career plans and employment needs across all academic disciplines and degree levels. CS's "high-tech/high-touch" philosophy offers 24-7 services plus individualized attention.

CS encourages students to partner with the office immediately after enrolling in classes—whether as a freshman, a transfer, or a graduate student. Services include:

- **Career Development** – Offers career interest tools, group sessions, and appointments for those desiring to identify their next educational/career path.
- **Internships** – Provides students with practical experience in their chosen major. Assignments include part-time as well as full-time work. Internships may provide a salary and academic credit with assignments possible as local, national or international levels.
- **Employment upon graduation** – Offers networking opportunities, career fairs (face-to-face and virtual), employer forums, on-campus recruiting, on-line job vacancies,

resume referrals, and an automated federal government KIOSK.

CS also provides specialized workshops for "soft skill" development (e.g., business etiquette dinners and dress for success seminars) and related sessions (e.g., behavioral interviewing, resume critiques, mock interviews, and development of scannable resumes). The office has videoconference meeting and interviewing capability. For more information, click on:

<http://www.fiu.edu/~carecr/>.

Locations: University Park, GC-230, (305) 348-2423; Biscayne Bay Campus, WUC-225, (305) 919-5770.

Disability Services for Students

Disability Services for Students provides information and assistance to students with disabilities who are in need of special accommodations. Individual services are available to students with visual, hearing, speech, physical, and learning disabilities. Services include counseling, classroom accommodations, adapted equipment, note-takers, readers, interpreters, adapted testing, priority registration, and referrals. Support and assistance in overcoming architectural, academic, attitudinal, and other barriers encountered are provided. Requests for services must be made prior to the beginning of each semester and current documentation of disability is required to receive services.

Location: GC 190, University Park, (305) 348-3532; WUC 139, Biscayne Bay Campus, (305) 919-5345; Bldg. 9, Room 224, Broward Program, (954) 948-6793; TTY/TDD 348-3852.

Health Care and Wellness

The Health Care and Wellness Center provides professional health care for routine, non-emergency illness and injuries and promotes health education, wellness, and preventive medicine. The Health Care and Wellness Center stimulates student awareness of holistic health behaviors which may be integrated into lifestyle practices to maintain optimal health.

Medical services offered at the Health Clinic include routine office visits, physical examinations, family planning consultations, HIV testing, immunizations, laboratory testing, limited pharmacy, nutrition counseling, podiatry, exercise testing, and private consultations with a physician or nurse practitioner. Referrals are made to

local hospitals, pharmacies, and physicians for services not provided at the Health Clinic. Appointments are required. In case of an emergency on campus, Public Safety should immediately be called 24 hours a day.

Office visits are free to students who present an FIU identification card valid for the current semester. Laboratory, immunization, office procedures, and pharmacy services are provided for a nominal fee. Students may be seen for up to one semester after their last semester of registered classes by paying a special "office visit fee".

Students may participate in many free health educational programs that stress proactive prevention, including Student Health Advocates for Peer Education (SHAPE), AIDS Peer Educators, and the Student Health Advisory Council (SHAC). A computerized exercise and diet assessment is also available by appointment. The Wellness Center sponsors a variety of health promotion events, including health fairs, health theme weeks, and others. The Wellness Media Center has educational resources including medical textbooks, journals, audiotapes, video-tapes, computer interactive software programs, and laser videodisks.

For more information, please see:

- The Student Handbook
- The Health Care and Wellness Center Website at <http://www.fiu.edu/~health> featuring the popular "Ask Dr. Well B" Interactive (personal Q and A health education), information on insurance, immunizations, emergencies, and a variety of health topics, as well as many external links to other health websites, a calendar of "Healthy Happenings" at FIU, and much more!

Location: Health Care & Wellness Center

<u>University Park</u>	
Appointments and Information	348-2401
Administration	348-3080
Immunization	348-2688
Business Office	348-6839
Health Education/Wellness Center	348-4020
Fax	348-3336
<u>Biscayne Bay Campus</u>	
Appointments and Information	919-5620
Immunizations	919-5675
Wellness Center	919-5307
Fax	919-5312

Student Media

Student media at FIU include *The Beacon* newspaper, WRGP radio, and *Vision* yearbook.

The Beacon is an editorially independent publication produced by students and distributed free. The purpose of *The Beacon* is to keep the University community informed about campus events and activities; to serve as a forum for opinion and commentary concerning campus related topics; and to protect the interests of the University community and its component parts. It is published each Tuesday during the Fall and Spring terms, except during holiday breaks. It is also published eight times during the Summer term. Students can work on the staff in news and features, photography, and/or advertising. No prior experience is required.

WRGP is FIU's radio station located at 88.1 FM. Its programming is an eclectic mix of the latest music on the cutting edge of the alternative scene, FIU sports play-by-play, and news. Programming also includes weekly specialty shows that cover the music spectrum of metal to reggae, and in between is Caribbean, hip-hop, rap, Latin rock, and jazz. The station operates from 7 a.m. to past midnight seven days a week. The station provides a means for students to acquire experience in various disciplines related to the broadcast industry, including hands-on experience in a realistic, business-like setting encompassing teamwork and professional standards. Students can work in areas such as broadcasting, business, promotions, and/or engineering. Prior experience is not required.

Vision is the official yearbook of FIU. The book is published each year and delivered to students and staff that purchased it. Its purpose is to serve as a historical record, a memory book, a reference source, a public relations vehicle, and an educational tool. The Student Government Association funds it. Prior experience is not needed to serve on the staff.

Location: **The Beacon**, GC 210 University Park (305) 348-1580; WUC 220, Biscayne Bay Campus (305) 919-5668. **WRGP**, GC 319, University Park, (305) 348-3071. **Vision**, GC 317, University Park, (305) 348-4562 or 348-1049.

University Housing

University Housing offers a wide variety of accommodations serving

over 1500 students at both the University Park and Biscayne Bay Campuses. Both furnished apartments, as well as a new state-of-the-art traditional residence hall, are available.

The traditional residence hall, Panther Hall, opened in the Fall of 1996. This 410 bed fully-furnished residence hall consists of two bedrooms, kitchens, private and semi-private baths, and basic furnishings. Apartment styles include studios, efficiencies, one bedroom, and two bedrooms.

Prices vary depending on the type of unit and campus location, with an average semesterly cost of \$2400.00. Semester rates include all utilities (electric, local telephone service, cable television, and water). All housing agreements are issued for the academic year with summer assignments available. A \$150.00 deposit is required at the time of application, of which \$50.00 is a non-refundable processing fee. Each residential facility provides easy access to the library, classroom buildings, athletic events, and a variety of on-campus recreation, social and cultural activities. All facilities are staffed with individuals who are trained and committed to providing the student with a living environment that is supportive of their academic pursuits. University Housing's goal is to challenge each resident to get involved and take advantage of the many out of classroom learning opportunities. Living on campus is a critical part of the college experience.

Location: Panther Hall (PH) 126, (305) 348-4190; Fax (305) 348-4295; E-Mail: housing@fiu.edu; Website: <http://www.fiu.edu/housing>

International Student and Scholar Services

International Student and Scholar Services provides assistance to international students, faculty, and researchers in non-immigrant status. The staff provides advising services on immigration, cultural, personal, social, and financial concerns.

The department serves as a liaison to academic and administrative departments throughout the University. An orientation program is offered each semester as well as social and cultural programs to assist students in adapting more effectively to the University community and to living in Miami. An active International Student Club on each campus collaborates with the department in organizing various social

activities. Club programs enable students to participate in the international dimension of the University and provide opportunities for involvement in the greater Miami community.

Location: GC 242, University Park, (305) 348-2421; WUC 257, Biscayne Bay Campus, (305) 919-5813.

Multicultural Programs and Services

The Office of Multicultural Programs and Services is comprised of Collegiate and Precollegiate programs. Collegiate Programs provide students with personal, academic, social, and cultural support needed for the achievement of educational goals. Staff provide orientation, leadership development, counseling, career and academic advisement, financial assistance, tutorials, and serve as a liaison to academic units and student support services University-wide. This department also collaborates with student groups in coordinating traditional cultural celebrations and other activities for minority students.

Location: GC 216, University Park, (305) 348-2436; WUC 253, Biscayne Bay Campus, (305) 919-5817.

Precollegiate Programs provide academic enrichment, career planning, and scholarship opportunities to promising minority students at the high school level. Precollegiate programs also expose high school students to the University environment and facilitate their transition to college.

Location: GC 216, University Park, (305) 348-2436.

The office manages two TRIO Program Grants. The Student Support Services Program is a federally funded program aimed at increasing the retention and graduation rates of first generation college students until they earn their baccalaureate degree. The Upward Bound precollegiate program provides supplemental instruction in academic areas, counseling, and life-skills training with the major objective of stimulating interest in attending college.

Location (Student Support Services) GC 216, University Park, (305) 348-2436; WUC 253, Biscayne Bay Campus, (305) 919-5817. (Upward Bound Program) GC 225, University Park, (305) 348-1742.

Office of the Ombudsman

The Ombudsman Office acts as an impartial and confidential forum to assist students who have encountered

problems or conflicts at the University, particularly problems or concerns not adequately addressed through normal channels. This may include correcting processes or procedures, which are incapable of resolving the issue, or are causing an inordinate delay. The Ombudsman may resolve problems through various methods, including investigation, mediation, or making referrals to the appropriate University department for review. The Ombudsman should be utilized in situations where all areas of appeal have been exhausted or proven unsuccessful.

For more information or services, please contact the Office of the Ombudsman at (305) 348-2797 located in Graham Center 219.

Orientation and Commuter Student Services

The Office of Orientation & Commuter Student Services provides resources, services, and programs to new students and the University's commuter student population. The "Panther Preview" Orientation program is designed to assist new students with the transition to university life by introducing them to the vast array of resources available at FIU, providing time to work with an Academic Advisor, and giving them an opportunity to get to know their new classmates. A mandatory two-day program for freshmen and a half-day session for transfer students are held prior to the Fall, Spring, and Summer semesters. A one-day parent program is also offered during each freshman session to introduce parents to FIU and assist them with preparing to meet the challenges of parenting a college student. Information about registering for Orientation is mailed to newly admitted undergraduate students prior to the first term of enrollment.

The Commuter Center, located at University Park, assists students with obtaining information that may aid them in making a smooth matriculation to the University. A variety of services are available at the Center including: off-campus housing information, campus maps, Student Handbooks, parking information, local telephone access, and child care information. In addition to a variety of University resources, the Center also provides a variety of programs and brochures for FIU's commuter students, as well as extended hours of operation.

Location: GC 112A, University Park, (305) 348-3828; WUC 363, Biscayne Bay Campus, (305) 919-5804.

Student Judicial and Mediation Services

The mission of Judicial and Mediation Services is to promote concepts of respect, civility, fairness, and conflict resolution on campus by enforcing community standards (FIU policies, federal, state, and local laws) and holding students accountable for their behavior in a fair, yet developmental manner, through the involvement of the campus community and educational development of students.

Infringement of an academic nature should be directed to the Office of the Provost. Complaints that are non-academic should be directed to Judicial and Mediation Services.

The Office of Judicial and Mediation Services also provides the following:

- Background checks for various agencies (Secret Service, FBI, CIA, State Department, DEA, Federal Marshals, Law Enforcement Agencies, Military, Graduate Schools, Law Schools, Dean Certifications, Florida Bar Examiners).
- Selection and training of judicial board members and hearing officers.
- Admissions clearances – The University reserves the right to review the case of any student who has been involved in misconduct prior to admission to determine eligibility for admission.

Please refer to the Student Code of Conduct section in the Student Handbook for more information regarding the Judicial and Mediation processes and procedures. Handbooks are available in Orientation and Commuter Student Services in Graham Center 112A and Campus Life in Wolfe University Center 363.

Location: GC 214A, University Park, (305) 348-3939.

University Centers

The University Center on each campus provides direct services to students and the University community. The Graham Center (GC) at University Park and the Wolfe Center (WUC) at Biscayne Bay Campus are the focal points for the University community to meet and interact in a non-classroom, educational environment. Staff in the centers coordinate the scheduling of space and assist with the production of student and University-sponsored events.

As the hubs of University life, the buildings house the offices of Student Government Association (SGA); Student Organizations Council (SOC); The Beacon student newspaper; Faculty Club, and departments of the Division of Student Affairs that provide services to students: Career Services, Counseling and Psychological Services, Office of Disability Services for Students, International Student and Scholar Services, Victim Advocacy Center, Leadership Development, Kaplan Centers, Office of Multicultural Programs and Services, Campus Life, Women's Center, Volunteer Action Center, Judicial and Mediation Services, and the Office of the Vice President for Student Affairs.

The University Centers also offer the services of computer labs, bookstores, cafeterias, grills, vending machines, credit unions, copy centers, automatic banking facilities, auditoriums, lounges, meeting rooms, ballrooms, movie theaters, and game rooms. Other services include; Lost and Found, locker rentals, vending refunds, test preparation courses, and Photo I.D. card.

The Graham Center houses classrooms, an art gallery, the Radio Station (WRGP), TicketMaster, a satellite cashiering office, a food court offering Pollo Tropical, Subway, Mex-Tex, Pizza Hut, Burger King, Edy's Ice Cream, Smoothie Time Health Food, and a coffee shop. The mini-mall offers a credit union, computer store, convenience store, copy center, bookstore, hair and nail salon, and travel agency.

The Wolfe Center at the Biscayne Bay Campus houses a theater, parking services, and a credit union.

The administrative offices of the University Centers are located, as follows: GC 104 at University Park (305) 348-2297; WUC 325 at Biscayne Bay Campus (305)940-5800.

Victim Advocacy Center

The Victim Advocacy Center provides emergency crisis intervention, ongoing support, advocacy, and resource referral to students, faculty, staff, and alumni who have been victims of crime or abuse. The Center provides awareness and prevention workshops and educational programs. A resource library is available for student use at the University Park office. All services are free and confidential.

The Victim Advocacy Center deals with, but is not limited to the following

types of victimization: sexual violence, relationship abuse, stalking, assault and battery, hate crimes, sexual harassment, and indecent exposure. Support is also available to surviving friends and family of murder victims. Persons who have experienced incidents of violence, harassment, or abuse are encouraged to seek assistance from the Victim Advocacy Center.

Location: GC 195A, University Park (305) 348-1214; WUC 257, Biscayne Bay Campus, (305) 919-5324; Crisis Response Line, 24 hours (305) 348-3000.

Women's Center

The Women's Center offers various programs and services related to the intellectual, social, and professional growth of women. Through collective efforts, the Center advocates for systemic changes that will improve the lives of women and men. Center programming focuses on the particular needs of women students, and encourages women to learn more about themselves, other women, and the environment in which they live. A Women's Mentoring Program exists to promote the professional and leadership success of FIU students. All programs are open to the entire community. Services provided by the Center focus on women, and include, confidential referrals, scholarships information, library and resource files, and opportunities for volunteers.

Locations: GC 318, University Park, (305) 348-3692 and WUC 256, Biscayne Bay Campus, (305) 919-5359.

Grants and Research

Grants and Research plans, prepares, submits, and monitors external grant applications for the Division of Student Affairs. The office also researches and investigates potential grant opportunities, provides direction in the monitoring and evaluation of externally funded programs initiated by staff members, and serves as liaison with the University's Sponsored Research Office.

This office develops partnerships with community and local educational agencies and acts as liaison with private and public agencies and organizations. Training is provided for Division staff regarding development and management of external funding opportunities. Policies regarding grants and grant writing are formulated and implemented. Grants and Research also

directs grant budgets and oversees budgeting of obtained grants.

Location: GC 331, University Park, (305) 348-2446.

Counseling and Psychological Services

The Counseling and Psychological Services Center offers a spectrum of mental health services which enhance the emotional and cognitive wellbeing of students. Individual, couple, and group counseling are offered.

Biofeedback services and psychological testing are also available. Programs available to the University community include psychoeducational workshops and seminars related to marriage, parenting, and mental health issues. Consultation services can be utilized by faculty or staff regarding student concerns. All services are free and confidential.

Location: GC 211, University Park, (305) 348-2434; WUC 139, Biscayne Bay Campus, (305) 919-5305.

Biscayne Bay Campus Recreational Sports

Biscayne Bay Campus Recreational Sports provides a variety of recreational, aquatic, and educational experiences. It contributes to the personal development of students and others by providing a variety of activities designed to enhance physical health while fostering an appreciation of competition, social skills, and cultural diversity.

The program includes the following: intramurals, aerobics and step and boxing aerobics, nautilus and weight training, swimming classes, lifeguard training, tennis clinics, swim/sports camps, fitness center, aquatic center, tennis facility and GMAC water polo tournaments. Special events include deep sea fishing, golf, turkey trot, and two bench press competitions.

Location: Biscayne Bay Campus Recreation Office, (305) 919-4571.

University Outreach Programs

The mission of University Outreach is to develop and implement quality educational programs and services in partnership with the academic, business, and professional communities. The instructional and academic resources of the University will be extended through innovative approaches including distance learning, alternative scheduling, and community-based academic credit programs. State-of-the-art technological capabilities offer a high-quality learning environment at the Kovens Conference Center or at a customer's location. A professional and courteous team is dedicated to the highest standards of customer satisfaction. Local, state, national, and international communities will be served with consistent, cost-effective, high quality and distinctive programs and services.

University Outreach carries out its mission to extend lifelong learning opportunities to adult and non-traditional students by providing increased access to University programs. Courses of instruction are developed and offered in a variety of formats.

Academic Credit Programs

Degree programs and courses for academic credit are scheduled to meet student needs by offering them at times and locations that will increase learning opportunities. More than 200 courses for academic credit are offered annually off-campus in Dade, Broward and Monroe Counties. Weekend degree programs for working professionals are offered in collaboration with the University's colleges and schools. Instruction using telecommunications is offered between campuses, public schools, and other locations with the proper equipment.

An individual, employer, public agency or professional organization may request that a specific course or degree program be offered, and may contract with the University to provide credit courses and degree programs at the work site to benefit a designated group of individuals. Study Abroad courses are also available in several academic disciplines in Europe, Asia, Africa, Latin America and the Caribbean.

Students may register for Outreach credit courses through the traditional registration process at Biscayne Bay Campus or University Park. Special

registration arrangements are made for students who meet at off-campus sites. For more information on Academic Credit Programs call (305) 919-5669.

Distance Learning

Distance Learning coordinates credit & Professional Development courses through state-of-the-art technology. Students are linked with professors electronically through television, computers, videotape, video conferencing, satellite teleconferencing, and other innovative technologies. Learning can occur in the home, in offices, in the community, or at Adult Education Centers convenient to the learner.

Distance Learning may occur anytime during the day at the convenience of the learner. Some instruction occurs at specific times and in specific locations on and off-campus. Instead of taking time to travel to and from campuses, students with job and family responsibilities may now tailor their academic work to their own busy schedules.

Each Distance Learning course is the equivalent of an on-campus section of the same course as to learning objectives, course content, and transferability. Students must meet stated prerequisites or assessment scores where applicable. Distance Learning courses provide the student a higher degree of scheduling flexibility. For more information about Distance Learning and course offerings, call (305) 919-5217.

Legal Studies Program

University Outreach offers the following Legal Studies programs: Legal Assistant, Legal Secretary, Law and Business Office Management, Immigration and Nationality Law, Medical/Legal Consultant, Family Mediation training, Circuit Civil Mediation training, and other courses for attorneys and paralegals. For more information call (305) 348-2491.

Kovens Conference Center

The Roz and Cal Kovens Conference Center at Florida International University supports the teaching, research, and public service mission of the University by offering an outstanding conference and meeting environment. Conference Center staff deliver quality meeting planning support services, and programs that meet or exceed the expectations of all

internal and external clients of the Center. Whether it is an academic symposium, a governmental assembly, a civic gathering, a professional seminar, an industrial/technological conference or a multinational corporate meeting, the Kovens Conference Center has a full array of University resources, faculty and staff available.

The Center is fully equipped with state-of-the-art telecommunications resources including computer labs, video-conferencing, audio/visual services, and case study rooms. Conferences have access to uplink/downlink satellite transmission enabling them to transmit to and from locations throughout the world. Simultaneous translation capabilities for up to three languages are also available. This exceptional array of communications services can satisfy the needs of the most demanding clientele. For more information call the Kovens Conference Center at (305)-919-5000.

Conference Services

Kovens Conference Center staff are available to help you transform your program ideas into successful conferences, workshops, seminars, institutes, meetings and other related educational activities. Before the program, staff can help with program planning and concept design, coordinate bid preparations, coordinate promotional activities, and coordinate all other meeting logistics. These services are available for off campus conferences as well.

During the program, staff will provide all program support services including directional signs, registration, arrange for required audiovisual, telecommunications, simultaneous translation, computer needs, and issue Continuing Education Units. After the program, staff will wrap-up all conference logistical details, process payment of all invoices, tabulate evaluations, and prepare final financial statements.

For more information, contact Florida International University's Kovens Conference Services staff at (305) 919-5000.

University Outreach Marketing

Outreach Marketing is responsible for promoting lifelong learning programs, and Kovens Conference Center

activities. This office provides professional creative and artistic means of publicizing programs and services,

including the development and distribution of publications, advertising, and public information. For more

information on Outreach Marketing call (305) 919-5669.

Governmental Affairs

Governmental Affairs

The Governmental Affairs unit of the Office of the Provost advocates university priorities to local, state and federal governments. The vice provost for Governmental Affairs coordinates the unit and provides advice and support to the Provost and the President of the University.

Governmental Relations

The director of Governmental Relations maintains a productive rapport with state government, particularly the State Legislature to maximize state funding; maintains positive rapport with the County Commission and community leaders as required.

Federal Relations

The director of Federal Relations in close coordination with the Division of Sponsored Research and the vice provost represents the University at the federal level of government and develops congressional support for the University's sponsored research initiatives.

Intercollegiate Athletics & Campus Recreation

FIU is a member of the National Collegiate Athletic Association (NCAA), and the Sun Belt Conference for men and women. The University has competed at the Division I-AAA level since September of 1987, having competed successfully at the Division II level since 1972. Programs and services in Intercollegiate Athletics provide an opportunity for student-athletes to develop as skilled performers in an educational setting. Much emphasis is placed on the student as a student-athlete to ensure intellectual, emotional and social well being.

Athletics

Athletic team membership is open to all full-time students, who meet NCAA eligibility requirements and are enrolled in 12 credits. Women's programs consist of basketball, volleyball, soccer, golf, tennis, track, softball, and cross-country. Men's programs consist of basketball, football, soccer, baseball, indoor and outdoor track and cross country. To be eligible for intercollegiate competition, the University requires each student-athlete to be in good academic standing and make satisfactory progress toward a degree. Team membership is determined in a manner, which does not discriminate based on race, sex, national origin, marital status, age or disability.

Financial assistance is available to both freshmen and transfer students recruited for all 16 athletic teams. Assistance may include grants, scholarships, loans or self-help programs. To be eligible for financial assistance, each student-athlete must be in good academic standing and make satisfactory progress toward a degree.

Athletic Facilities

The Golden Panther Athletic Facilities encompasses seven facilities that serve as the sites for athletic, educational and recreational activities.

The Golden Panther Arena is a multi-purpose facility. There is a seating capacity for special events of 5,150. The main floor can hold four volleyball courts and two basketball courts. The two auxiliary gyms can each hold one full basketball court or a volleyball court. Also housed in the arena are four racquetball courts, five classrooms and six locker rooms. The

arena is open to students, faculty, staff and alumni with a valid Recreational Pass.

The FIU Soccer and FIU Softball stadiums are the home of our intercollegiate men's and women's programs. Both stadiums are lighted. The soccer stadium seats 1,500 and the softball stadium seats 300.

The FIU Tennis Center has twelve lighted courts and is home to the Women's tennis program. The courts are also open for daily recreational play.

The FIU Community Stadium is a Football and Track facility. The stadium will be the home of our intercollegiate football program, and is also the home of our men's and women's track and field programs. In the fall, the facility is used to host many Miami-Dade County Schools high school football games.

The University Park Baseball Stadium has been upgraded by over \$1,500,000 in renovations the past year. It is the home to our intercollegiate baseball team. The newly renovated stadium has a seating capacity of 1,600.

FIU students are admitted to all regular season intercollegiate athletic home events free of charge. Presentation of a valid University identification card is required.

For additional information please call: FIU Athletic Facilities 348-3258; Golden Panther Box Office 348-4263 (FIU-GAME).

Campus Recreation

Campus Recreation offers recreational sports and fitness programs and facilities to Florida International University students, faculty, staff and alumni. Funding for Campus Recreation is primarily through student fees allocated by the FIU Student Government Association (SGA).

A variety of Intramural (IM Sports) are offered, including men's, women's and co-rec leagues in sports such as flag football, basketball, volleyball, softball and soccer, and tournaments for racquetball, tennis, and golf. Individuals looking for a team are encouraged to register as "free agents". Registration for all Intramural Sports can be completed on the Web on the Campus Recreation website.

The Student Fitness Center (SFC) is equipped with a variety of modern exercise and cardiovascular fitness

equipment. In addition to free weights, Body Master and Paramount resistance equipment, stair climbers, upright and recumbent bicycles, treadmills, rowers, Nautilus machines and elliptical rowers are featured. The SFC is located adjacent to the Golden Panther Arena (GPA).

Low or no-cost Aerobics classes, including spinning, kick boxing and step, are offered throughout the year, as are specialty classes such as yoga and belly dancing. Fitness orientations, body composition evaluations, and personal training are featured services at the Student Fitness Center.

The Golden Panther Arena provides recreational basketball, volleyball and badminton courts for limited drop-in use, and 4 indoor racquetball courts available on a reservation basis. The Tennis and Racquetball Center offers six recreational tennis courts and eight 3-wall racquetball courts (all lighted for evening play). Tennis lessons are available. On-campus swimming is available at Panther Hall Pool, and students have access to nearby Tamiami Pool during lap swim hours. A current, activated Golden Panther photo ID is required for access to all recreation facilities and programs.

Campus Recreation provides student employment opportunities as sports officials, fitness center attendants and supervisors, lifeguards, aerobics instructors, office assistants and more.

For additional information, call:

Campus Recreation: 348-2951
 Student Fitness Center: 348-2575
 Panther Hall Pool: 348-1895
 Golden Panther Arena: 348-2900
 IM Sports: 348-1054
 Tennis Center: 348-6327
 Web Site: www.fiu.edu/~camprec

(For Biscayne Bay Recreational Sports, see *Student Affairs*)

Centers and Institutes

Jerome Bain Real Estate Institute

The Jerome Bain Real Estate Institute, a partnership between Florida International University's College of Business Administration and the Realtor Association of Greater Miami and the Beaches, exists to create value for real estate firms and the real estate industry through its educational, research, and service activities. It is fast becoming a premier, University-based real estate educational and research center, known for its exceptional expertise in international real estate transactions.

The Center supports the College's undergraduate academic major in real estate and is developing a graduate program in the field as well. Graduates have a solid grasp of issues facing the industry and of real estate business theory and practice.

The Center also sponsors theoretical and applied research on real estate topics and supports faculty research in this area. It is a repository for data related to real estate markets and periodically issues information on current market characteristics and future market conditions.

The Center offers management training seminars, symposia and conferences on topics of interest to professionals in the real estate industry. It also coordinates the provision of educational programs relating to certification and the continuing education needs of real estate professionals.

The Institute is located in the Ryder Business Building, University Park Campus, BA 232, (305) 348-2771, jbre@fiu.edu.

Center for Accounting, Auditing, and Tax Studies

The Center for Accounting, Auditing, and Tax Studies (CAATS), housed within the College of Business Administration and its School of Accounting, conducts and sponsors innovative research. Major ongoing projects focus on the audit impact of emerging technology and on the detection of fraud.

CAATS builds bridges to practitioners by turning ideas into products; it enhances the value of accountants' services to clients and to the public by contributing to audit efficiency and effectiveness. CAATS' international

commitments relate to the accounting issues confronting the less developed nations, particularly in the Middle East and Latin America.

CAATS also conducts seminars and short courses designed to provide educational opportunities to South Florida public accountants, internal auditors, and management accountants. CAATS strives to be self supporting. Net fees earned by providing educational opportunities to accountants, together with contributions received from the public, are applied to research and to the enrichment of graduate instruction. In this way, CAATS provides the margin of excellence which enriches the entire educational experience.

All CAATS activity is dedicated to advancing accounting, auditing, and tax knowledge. CAATS is located in the Ryder Business Building, University Park. Felix Pomeranz, (305) 348-2581; pomeranf@fiu.edu.

Center for the Administration of Justice

The Center for the Administration of Justice (CAJ) was founded at Florida International University, a member of the State University System of Florida, in 1984 to engage in research, training and public education about the administration of justice in Latin America. With offices in Miami and San Jose, Costa Rica, CAJ has become a unique international resource at the forefront of justice sector reform in Latin America.

CAJ employs a multidisciplinary and international staff of specialists, including lawyers, political scientists, public administrators and public policy analysts. Many are former justice sector officials with experience and skills in justice sector issues.

Giving special emphasis on support to local efforts to strengthen and invigorate fair and independent justice systems, the CAJ regularly works with public officials, scholars and practitioners in Latin America.

The CAJ has become a leading source of information and leadership on justice sector reform issues in Latin America. Its assessments have been widely disseminated and have been critical in public policy decision-making throughout the region. Luis Salas, (305) 919-5952; salasl@fiu.edu.

Center for Advanced Technology and Education (NSF-CATE)

Introduction

The NSF-funded Center for Advanced Technology and Education - CATE provides a computing environment capable of engaging researchers as well as facilitating classroom and laboratory-based instruction in critical technology areas. CATE constitutes an infrastructure that is viable for cutting-edge research activities providing an environment that enhances the potential for: (a) Parallel and distributed processing, (b) high performance 3-D graphics for simulation, rendering and modeling, (c) real-time processing capability, (d) operating systems, graphics and software development that meet current standards, and (e) high-speed data acquisition, playback, and analysis.

Research Areas

- Image Processing and Computer Vision
- EEG-Based Imaging
- Robotics
- Real-time and Multidimensional Signal Processing
- Confocal Microscopy
- Flow Cytometry
- Human-Computer Interface Research

Main Equipment

- ESI-256 System, an Electrical System Imaging as a Human-Computer Interface for Brain Research
- Onyx supercomputer for true supercomputing and Graphics power
- Confocal Microscope for RCM 8000 real-time confocal microscopy for time-varying 3-D imagery.
- Coulter EPICS Profile II Cytometer for measuring light scatter (fluorescence or laser) of microscopic particles.
- Nomadic Mobile Robot (Nomad200) with integrated sensory modules.
- Workstations with 22 Indys, 11 Pentium PCs

Human Resources

Director: Malek Adjouadi, Ph.D.
Manager: Patricia Vidal, M.Sc.
Support Staff: Julio Blandon, Erika Suarez, Luz Camacho, Claudia Rodrigues
Faculty: Armando Barreto, Ph.D., James Story, Ph.D.; Gustavo Roig,

Ph.D.; Wunnavu Subbarao, Ph.D.; Ana Pasztor, Ph.D.; Maria Martinez, Ph.D.; and Julie Jacko, Ph.D.

Student Support: 9 Graduates and 5 Undergraduates

NSF Fellows: Annette Taberner, 1997-2000; and Erica Suarez, 1998-2001. Malek Adjouadi, (305) 348-3019; malck@vision.fiu.edu.

Center for Banking and Financial Institutions

The College of Business Administration at Florida International University has a long tradition of preparing students for careers in banking and financial institutions. The Center for Banking and Financial Institutions was established to provide additional services to banks and financial institutions in the southeastern United States, in Latin America, and in the Caribbean region. Through the Center, associates in such specialties as accounting, finance information systems, marketing, and human resource management apply their respective functional expertise to address contemporary issues in the banking and financial service industries.

The Center for Banking and Financial Institutions meets the demands of the banking and financial services sector through its educational, management development, research, and consulting activities.

The Center conducts high-quality management training seminars and conferences on a host of topics of interest to banks and financial institutions. These topics range from consumer and commercial lending to credit analysis to Bank Security Act compliance to foreign trade financing. The Center also provides customized in-house training programs for institutions wanting a more individualized and focused approach.

The Center supports both theoretical and applied research on issues in the financial services sector. Research results have been presented to government agencies like the Federal Reserve Bank, provided to professional organizations like the Financial Management Association, and published in academic journals like the *Journal of Financial and Quantitative Analysis*. The Center also has produced research reports for specific organizations, like Citicorp International and the Miami International Airport. The Center's research on international trade has gained worldwide media attention.

The Center serves as a consulting, clearinghouse and resource for banks and other financial institutions wanting to find experts to help them solve their unique organizational problems.

The Center for Banking and Financial Institutions is located in the Ryder Business Building, University Park Campus, BA 232, (305) 348-2771, cbfi@fiu.edu.

Center for International Business Education and Research (CIBER)

Established in 1995 and housed in Florida International University's College of Business Administration, the Center for International Business and Research (CIBER) exists to promote teaching, research, and outreach aimed at helping students, faculty, and businesses identify and address the challenges posed by a global economy. More specifically, it seeks to internationalize these stakeholders in order to improve the competitiveness of U.S. firms in world markets.

The Center supports the international focus of the College's academic programs and the University's language-oriented courses. It provides a Certificate in Latin American Business Spanish and, with the University's Department of Modern Languages, offers "Languages for Business" courses in Spanish, French, Japanese and Chinese. It also sponsors an international business course for local high schools and study-abroad programs for students.

The Center supports the College's thematic research on international competitiveness, human resource management, logistics, entrepreneurship, ethics, and environmental compliance. It has coordinated research to support Miami-Dade County's "One Community, One Goal" economic development plan. It sponsors the "Faculty Development in International Business—South America" study tour for faculty. In addition, the Center publishes an annual "Working Paper Series" describing research projects for the year.

The Center is located in the Ryder Business Building on the University Park Campus, (305) 348-1740.

Center for Urban Education and Innovation

The mission of the Center for Urban Education & Innovation is to facilitate and support basic and applied research, professional service to the educational community, and public advocacy relating to critical issues in urban school systems in Southeast Florida and beyond. Programs and activities of the Center focus on improving student achievement, enhancing the quality and responsiveness of schools as learning organizations, and contributing to the development of theory and practice in areas addressing the needs of students and families from diverse racial, cultural, socio-economic and linguistic backgrounds.

Contact: Dr. Linda Blanton, (305) 348-6463; blantonl@fiu.edu.

Center for Youth Development (CYD)

The Center for Youth Development (CYD) located at University Park Campus is a multidisciplinary institution founded to conduct research aimed at the improved understanding and prevention of health-risk behaviors and environments that impair the healthy development of urban youth. In pursuing this goal, the CYD emphasizes understanding individual development as it occurs in diverse contexts including families, peer groups, schools, communities, and different cultures. The CYD is aimed at integrating ongoing research programs and training opportunities with the application and evaluation of youth-focused prevention/intervention programming in community settings.

Researchers and practitioners associated with the CYD strive to share and integrate knowledge about the health behaviors of at-risk youth. Similarly, the CYD provides opportunities for collaboration and sharing of appropriate and effective health-related methodologies, e.g., with regard to assessment, intervention, or evaluation. One premise of the CYD is that to maintain positive changes in the communities served by FIU, the CYD has a responsibility to train students to go back into their communities as agents of change. Through the CYD, FIU students will help to implement research and inter-vention programs, disseminate health-related research into local communities, act as mentors for at-risk youth, and begin to form a community-based network of

professionals who potentially will serve as links in continuing collaborations between FIU and local communities.

Faculty interest in the problems of youth has been the impetus for the formation of the CYD. Faculty associated with the CYD have active programs of research that involve publishing articles in relevant journals and pursuing extramural funding initiatives. In addition, CYD members teach a wide array of classes focusing on the lives of at-risk youth.

As FIU students acquire research and service experiences via community outreach, students: a) become invested in the well-being of local communities; b) make more con-tinuous transitions to work following college; and , c) serve as a network of continuing contacts between FIU and local communities.

For more information, call (305) 348-3341, or write to Dr. Lilly M. Langer, Director, Center for Youth Development, University Park DM 332B, Miami, Florida 33199. Email: langerl@fiu.edu

Institute on Children and Families at Risk

The Institute on Children and Families at Risk was established by the School of Social Work at Florida International University in 1991. The Institute promotes research, demonstration projects, training, and technical assistance to address the needs of children, youth, families, and the social networks and systems that support them and with an emphasis on prevention, and intervention research, the Institute also designs and evaluates improvements in 'helping' technologies for all service systems supporting at-risk children, families and communities for culturally responsive services.

Emphasizing partnerships at the local, state and national level, the Institute collaborates with a number of institutions, organizations and sectors to promote technology transfer, joint demonstration projects and capacity-building efforts. Special emphasis is on the link between universities, public sector social health services and public schools. The Institute provides consulting services both nationally and internationally with a focus on the training and technology transfer between states and nations on techniques and strategies to better organize services and supports for at-risk children, families and communities.

The Institute also serves as the research and development arm of the School of Social Work and provides research opportunities for master's and doctoral-level students. Its cross-systems endeavors also depend on the leadership and expertise of faculty and students in other disciplines at Florida International University, at several other universities in the South Florida area and the staff of the State of Florida's Department of Health and Rehabilitative Services staff. Barbara Thomlison, (305) 348-5883; thomliso@fiu.edu.

Drinking Water Research Center

The Drinking Water Research Center (DWRC) was established by the Florida Legislature in 1977, and charged with the responsibility for conducting applied research on the State's drinking water. Since that time, the Center has responded to state, national and global environmental concerns by expanding its research focus to cover a wide spectrum of water-related environmental issues. The main focus of the Center's research activities includes basic and applied research as it relates to drinking water quality and quantity. The Center provides research opportunities for undergraduate and graduate students to conduct independent studies in cooperation with other departments within the university, state agencies and private organizations. The Center's laboratory facilities are certified by the State of Florida to analyze chlorination by-products in water samples.

Examples of the current research activities conducted at the Center include assessment of technologies to remove petroleum hydrocarbons from water, speciation of metals in sediments, experimental and mathematical modeling of fate and transport of contaminants in the environment, dynamics of chemical transformations in natural and engineered systems, pesticide sorption in various geosorbents, surfactant-amended remediation, use of microscopic image processing techniques to characterize particles in water samples, development of new and improvement of established analytical methods for detection and measurement of contaminants in water and soil samples, development of pollution prevention measures in support of industrial ecology. In

addition to research activities, the Center also conducts short courses, seminars and workshops for training of environmental professionals in the areas of water treatment, new analytical methods, and drinking water regulations.

The Center is part of the College of Engineering, and it is located at EAS 3390, (305) 348-2826, www.fiu.edu/~dwrcc.

Research and Support Staff:
Berrin Tansel, Ph.D., P.E., Director, Associate Professor, Civil and Environmental Engineering Department
Mehrzad Mehran, Pharm. D., Senior Research Scientist
Nahid Golkar, M.S., Research Scientist

Center of Economic Research and Education

The Center of Economic Research and Education is a Type II Center approved by the Board of Regents of the State University System. The purpose of the Center is to foster a greater understanding of economics. The Center represents an important link between the University, business, and education communities. As part of its activities, the Center undertakes research projects, sponsors conferences and seminars, provides courses in economic education for teachers, and disseminates economic data and information.

Established in 1982 as one of eight centers located throughout the State University System, the Center is located in DM 319B, University Park. Its phone number is (305) 348-3283.

International Institute of Educational Development

The International Institute of Educational Development (IIED) is a multidisciplinary unit based in the College of Education whose mission includes: (1) planning, technical assistance, training and research in support of educational systems development internationally and (2) multi-institutional collaboration in educational development projects and research and (3) to support graduate programs in international and intercultural development education.

For more information call (305) 348-3418, or write to Dr. Miguel A. Escotet, Director, International Institute of Educational Development, College of Education, University Park Campus, Miami, Florida 33199. E-Mail: iide@fiu.edu

Institute for Workforce Competitiveness

The Institute for Workforce Competitiveness (IWC) was established by the College of Education in 1997, and designated as a Type III Institute by the Florida State University System's Board of Regents in 1997. Since that date, the IWC excelled in providing professional development activities, evaluation services, and technical assistance in support of workforce development initiatives to states, regions, local communities, and national territories.

The IWC mission is to improve workforce development and utilization through research, technical assistance, and partnership development, and utilizes five key research goals to guide project activities: 1. Provide reliable data and analysis contributing to the knowledge and literature base for workforce development, 2. Implement a dissemination strategy in which information on workforce development is provided to a wide range of audiences, 3. Provide information for the identification of appropriate programmatic outcomes and policy changes based on sound research and practices, 4. Conduct research studies that include all relevant academic disciplines in order to address complex workforce development and utilization issues and problems in schools, 5. Conduct research on workforce development initiatives in schools to determine impacts on student achievement and workforce competitiveness.

The Institute for Workforce Competitiveness is located in TC 31, Room 102. For a additional information please visit the Institute's web site at www.fiu.edu/~xiwc or telephone (305) 348-6529.

Institute for Lifelong Learning

The Institute for Lifelong Learning is the older learner continuing education program of the Center on Aging. Since 1977 it has provided for the educational needs of senior adults at the University's Biscayne Bay Campus. The Institute's mission is to plan, design and manage non-credit short courses, lectures and seminars for older learners. Programs in the humanities, fine arts, behavioral sciences and social sciences provide opportunities to develop new skills and to explore means for personal growth and self improvement. The Institute's

instructional staff are community professionals, university faculty, graduate students and retired experts. The participants are motivated learners who seek knowledge, new information and skills for intellectual stimulation and personal growth.

The Institute is located at the Roz and Cal Kovens Conference Center at FIU's Biscayne Bay Campus, 3000 NE 151 Street, North Miami, FL 33181. The Institute's outreach program at Coral Gables offers courses for older learners taught in Spanish and English at St. Mark's Lutheran Church, 3930 Le June Road.

Our office is located at the Biscayne Bay Campus. For more information, please call (305) 919-5910.

English Language Institute

Since 1978, the English Language Institute (ELI) has offered non-credit English language instruction to non-native speakers of English in the community and from abroad.

Intensive English Program: Classes in reading, grammar, writing, and conversation are taught at six levels of proficiency. Language laboratory facilities are available in which students can increase their listening comprehension and speaking skills under the guidance of an instructor. Students normally take a full, three-course load, but it is also possible for fully-admitted University students to take a course in a single skill.

Testing and Placement: The English Language Institute offers proficiency testing of both written and oral proficiency in English as a support service for academic units throughout the University. Evaluative procedures are designed to fit the needs of individual programs or schools, to assist them in the identification of individual students' level of proficiency in English, and to place students in appropriate programs of study when needed. In addition, the Institute regularly administers the Test of English as a Foreign Language (TOEFL).

Community Outreach Program: The English Language Institute offers non-credit courses in the evening and on Saturday for non-native speakers of English.

Accent Reduction: Accent reduction classes are available for non-native speakers of English who have a good command of the language but who wish to improve their pronunciation.

Other Programs: Business English, Intensive Conversation (immersion), Practical Conversation, Summer Institute. The English Language Institute is located in LC 204, University Park, (305) 348-2222, or web: www.eli.fiu.edu.

The Family Business Institute

The Family Business Institute, a part of the College of Business Administration, was created to provide an ongoing series of small, personal, in-depth seminars focusing on challenges faced by mature family business owners, their families, and their non-family staff. Currently, the Center is inactive.

The Family Business Institute is located in the Ryder Business Building, BA 332, University Park Campus, (305) 348-4237.

FAU-FIU Joint Center for Environmental and Urban Problems

In response to environmental and urban issues, the Florida Legislature established the Joint Center for Environmental and Urban problems at Florida International University and Florida Atlantic University in 1972. In many years since then, the Joint Center has been involved in the formulation of most of Florida's growth management laws and policies.

The Joint Center is an applied research center that conducts studies on urban and environmental issues and provides public service to government agencies and non-profit organizations. The Joint Center's FIU Office specializes in economic development, urban revitalization, community development, housing, and growth management in South Florida. It is dedicated to conducting high-quality interdisciplinary research and facilitating collegiate cooperation among FIU and FAU faculty and researchers.

Since 1998, the Joint Center's FIU Office moved to downtown Miami and is located in the new Metropolitan Center (150 SE 2nd Avenue, Suite 1201, Miami, Florida 33131). It established a new collaborative relationship with the College of Urban and Public Affairs that allows the Center shared resources with the College's Metropolitan Center. This arrangement also brings faculty specializing in urban policy, program evaluation and economic development

to the Center's project. The FIU Office is staffed by an associate director and several doctoral research associates.

Research and Services

Research at the Joint Center's FIU Office focuses on economic development, inner-city revitalization, and other growth management issues. The Joint Center is committed to assisting government agencies and community based organizations in formulating their planning and development programs. Recent clients included the Florida Department of Community Affairs, Miami-Dade Metropolitan Planning Organization, City of Florida City, Miami-Dade Transit Agency, and the South Florida Housing and the Community Development Coalition.

Working with the Metropolitan Center, the Joint Center's FIU Office just completed a project on transportation needs in welfare reform. It also participates in the federally funded Community Outreach Partnership Center program to provide technical assistance to community development corporations in Miami-Dade. It also entered into an agreement with the South Florida Housing and Community Development Coalition to develop land and economic study of the 79th Street Neighborhood Initiative. Currently, the FIU Office just started a GIS project on welfare-to-work with the Miami-Dade Metropolitan Planning Organization. It is also developing a project with the Lincoln Institute to examine the Community Councils under a two-tier zoning system in Miami-Dade.

Because of the shift of focus toward economic development and urban revitalization, the Joint Center's FIU Office discontinued its internship program with the South African Institute of Town and Regional Planners. Instead, internship is established for local students who are interested in economic development. Edward Murray, (305) 348-1251; murray@fiu.edu.

Future Aerospace Science and Technology Center for Cryoelectronics (FAST)

FAST is one of five centers created by the Air Force as part of its minority university enhancement program, providing research experience opportunities for undergraduate and graduate students in the area of Electrical Engineering.

The FAST Center evaluates novel applications of space-based cryo-

electronics, initially studying new systems for reduction in losses of feed and phase shift networks in phased array transmitter systems. This involves development of low-loss active integrated low-noise phased array or post-processed phased array down-converter receiving systems, high gain-low loss, low noise micro (and later millimeter) wave circuits and systems for space based applications. Of particular interest is the ability to design and fabricate integrated systems which could be used as "steerable" phased array antennas with, some frequency-agility as well.

Current research is focused on issues relating to: integration and heteroepitaxy of the buffer and dielectric layer with the GaAs semiconductor and 123 high T_c superconductor layers; obtaining good ohmic GaAs contacts at low temperatures, tailoring the surface morphology of the high T_c superconductor to achieve a designed Q value for the passive elements, package design and testing with respect to microwave and thermal cycling consideration, and the identification and minimization of noise sources.

Grover Larkins, (305) 348-3498; larkins@eng.fiu.edu.

The FIU Institute of Government

Since 1982, the Institute of Government, as part of the College of Urban and Public Affairs has provided training, technical assistance, consulting services, policy forums and executive leadership development programs to municipal, county, and state administrators, staff members, appointees, and elected officials in Miami-Dade, Monroe, and Broward Counties. This program draws the university together with the community in which it resides, and couples ideas and skills from many disciplines with working governments.

Upon request, the Institute develops and delivers specialized training for governmental units to address specific needs they have identified. The training is developed in consultation with the clients and can be delivered at their site or at the University. The Institute offers a workshop series for career development for governmental staff as well. The Institute also holds conferences and workshops as a forum for community discussion about and analysis of policy issues of concern to local governments and state departments in the South Florida area. Topics in the

past have included "Right-Sizing Government", "The Homeless Problem", "Decision Making in the Aftermath of Hurricane Andrew", and "Florida Sunshine Laws".

Technical assistance and applied research services are also provided for a wide variety of units and divisions within state and local governments. Issues that may be addressed include public management, public policy analysis, and service delivery systems.

The Institute also conducts strategic planning and organizational development sessions to allow organizations to build capacity for achieving "best practice". The Institute has developed expertise in performance measurements and other analytic practices.

The Institute and the Department of Public Administration conduct a certificate program for the Executive Development Program for Mid-level career public and voluntary sector managers. Recently, (1997), the Institute also created the Academy for Strategic Management which focuses on training high level senior managers in strategic planning, benchmarking, performance measurement, contract management, etc. More information is available at iog@fiu.edu, or visit our website at www.fiu.edu/~iog.

Howard Frank, (305) 348-1251; frankh@fiu.edu.

High Performance Database Research Center (HPDRC)

HPDRC Mission Statement

The High Performance Database Research Center (HPDRC) conducts research on database management systems and various applications, leading to the development of new types of database systems and the refinement of existing database systems.

The HPDRC, a research division of the Florida International University School of Computer Science, has a strong commitment to training graduate students and preparing them for their future roles as scholars and specialists employed by industry.

Government agencies and industry fund the HPDRC. At \$4 million, NASA currently provides the largest amount of money for the Center. Other sponsors include: National Science Foundation (\$2.5M), U.S. Department of Defense (BMDO, ARO, USAF, and DISA), U.S. Department of the Interior, U.S. Information Agency, NATO, Florida Department of

Commerce, Florida Department of Education and Industry.
HPDRC Research Scope

The HPDRC flagship project is a highly parallel database system based on the semantic/object-oriented approach. Our system:

- provides exceptional usability and flexibility
- allows shorter application design and programming cycles
- gives the user control via an intuitive structure of information
- empowers the end-user to pose complex ad-hoc decision support queries
- provides superior efficiency through a high level of optimization transparent to the user
- allows a manifold reduction in storage size for many applications (such as Data Warehouses)
- is fully internet compatible

The Center also conducts research on such theoretical and applied issues as internet-distributed heterogeneous databases, database design methodology, database design tools, information analysis, multi-media database languages, data compression, spatial databases, and visualization.

In addition, the Center designs specific database systems for highly complex applications. We are presently developing database systems for the Everglades National Park and NASA that are intended for storage and processing of large amounts of earth science observations.

FIU's Regional Applications Center is a division of the HPDRC chartered by NASA for the purpose of data ingestion from satellites, enhancement of data, and distribution of data to users via internet queries and otherwise.

More information about HPDRC is available at the University Park Campus, ECS 243, (305) 348-1706. fax: (305) 348-1705, e-mail at hpdrcc@cs.fiu.edu or visit our website at <http://hpdrcc.cs.fiu.edu>

Knight Ridder Center for Excellence in Management

The Knight Ridder Center for Excellence in Management within Florida International University's College of Business Administration exists to identify and promote best business management practices among its students, faculty, and alumni, and among the international academic, business, and professional communities it serves.

The Center develops academic programs focusing on enterprise development within the global economy. It coordinates the College's Global eMBA program, an executive MBA program for managers in the Americas that emphasizes an interdisciplinary curriculum, a global perspective, project implementation, and adding value to the enterprise. It also is a web-based program, combining Internet course delivery and 4 residency sessions in Miami. In addition, the Center sponsors seminars and conferences that address topics related to excellence in management.

The Center sponsors and promotes faculty development and research in the area of management excellence and best practices and provides funding for some of this research through its summer grant program.

The Center's service and outreach activities include business seminars, executive roundtables, and consulting.

The Center is located in the Ryder Business Building, University Park Campus, (305) 348-3157.

Professional Development Center

The Professional Development Center (PDC) at FIU provides experiential, competency-based training to staff of the Florida Department of Children and Families, Division of Family Safety. The Florida Legislature has mandated that child protection counselors, supervisors, specialists, and contracted providers meet strict training and testing requirements to become certified as Child Welfare Professionals. The PDC provides the pre-service training and testing designed to help fulfill the Department of Children and Families' responsibility to ensure that child protection professionals have the basic knowledge, skills, and abilities necessary to perform their duties and are provided with ongoing professional development.

Located on the Biscayne Bay Campus, the PDC is administratively housed under the College of Health and Urban Affairs, School of Social Work. The center is staffed by a credentialed, experienced group of instructors who provide field-based training to child protection workers in a catchment area that extends from Vero Beach to Key West. In addition to providing the classroom training and testing, these instructors conduct ongoing assessment of trainees through observation and consultation on actual casework

situations to achieve the mission of the PDC which is to provide child protection professionals with the knowledge, skills and abilities needed to make decisions that provide Florida's children with safe and permanent homes. Debra Danker-Sandler, Director, email: danker@fiu.edu; or website: www.fiu.edu/~pdc.

Hemispheric Center for Environmental Technology (HCET)

The Hemispheric Center for Environmental Technology (HCET) was established by Florida International University and the United States Department of Energy to research, develop, and demonstrate innovative environmental technologies and to establish international alliances to facilitate the implementation of these technologies.

HCET's research and development (R&D) activities focus on the decontamination and decommissioning of nuclear facilities and the management and reduction of radioactive and hazardous wastes. These R&D activities support the Department of Energy-Environmental Management programs in the areas of waste characterization, monitoring, and sensor technology; underground storage tank remediation; and decontamination and decommissioning.

HCET's mission is to develop and market technologies to solve environmental problems and foster sustainable development throughout the Americas. To achieve this end, HCET performs R&D, gathers and disseminates market and technology assessment data, facilitates technology transfer, and forms partnerships with industries and governments throughout the Americas. HCET targets its technology transfer capabilities to environmental technology development organizations and industrial users of environmental technologies.

HCET has the capability and resources to develop innovative technologies as well as assess and demonstrate technologies that have been developed or modified both in-house and by other vendors. HCET also has the expertise to comparatively evaluate emerging technologies and pursue, organize, and facilitate technology transfer from suppliers to consumers.

HCET is equipped with state-of-the-art equipment and machinery to carry out its project goals. HCET's facilities include:

- Open-Air Technology Assessment Site for conducting large-scale technology assessments.
- Hazardous Materials Laboratory housing state-of-the-art rheology equipment, with the capacity to perform specialized analytical and engineering activities.
- Fully-equipped Analytical Laboratory to define the chemistry and characterization of waste tank forms, evaluate contaminants in groundwater and soil, and monitor air quality levels.
- Computational Fluid Dynamics facilities applying CFD techniques for modeling and analyzing the fluid flow and heat transfer in engineering systems.
- Fabrication Shop capable of performing lathe operations, two dimensional CNC milling, precision drilling and cutting, welding and woodworking.
- Experimental Facilities for characterization, monitoring, and sensor technology allowing low and high temperature study, single and two-phase flow, heat transfer and phase change, as well as sintering.

HCET recently opened site offices in San Antonio, Texas, and Tampa, Florida. HCET currently maintains site offices in Oak Ridge, Tennessee, and Cincinnati, Ohio to pursue new R&D opportunities.

International Forensic Research Institute (IFRI)

The International Forensic Research Institute (IFRI) was established at Florida International University (FIU) by the State University System (SUS) of Florida Board of Regents (BOR) in 1997 to help serve law enforcement efforts in the application of scientific principles to the administration of justice. Dozens of IFRI-affiliated faculty conduct forensic research in various departments including Biology, Chemistry, Criminal Justice, Earth Sciences, Physics, Political Science and Psychology. Additionally, IFRI has affiliations with research scientists from some of the world's foremost forensic science laboratories. Based in the chemistry department, the institute administers an undergraduate Forensic Science Certificate program and the first SUS BOR approved Master of Science in Forensic Science, an

interdisciplinary graduate program with non-traditional course delivery available.

Research and training areas include arson/explosive residue analysis, detector dogs, driving impairment, environmental forensics, forensic DNA analysis/interpretation, forensic facial approximation, forensic toxicology, trace elemental analysis of forensic samples, courtroom persuasion, eyewitness identifications and recall, eyewitness testimony of children, jury selection and decision making, patterns in narcotics trafficking and substance abuse. Students working with the institute have access to state-of-the-art facilities and instrumentation including HPLC/MS, ICP/MS, pyrolysis GC/MS, SPME/GC/MS/MS, GRIM II, SFES, CZE, environmental SEM, etc. For additional information, please write to IFRI, Department of Chemistry, FIU, University Park, Miami, Florida 33199, (305)-348-6211 or visit our web site at www.fiu.edu/~ifri

International Hurricane Center

The International Hurricane Center (IHC) is a Type I research center serving the State University System of Florida. Type I status was approved by the Board of Regents on March 15, 1996, and makes the IHC Florida's official hurricane research center for the ten universities comprising the state system. The IHC is also designated as a formal liaison for NOAA's Tropical Prediction Center (also known as the National Hurricane Center) located on the University Park campus.

The IHC promotes a multidisciplinary research mission focused on mitigation of hurricane damage to people, the economy, and the built and natural environments. The IHC's large-scale research agenda includes topics in diverse disciplines such as engineering, architecture, sociology, earth sciences, construction management, urban planning, economics, finance, insurance, and environmental science among others. Research opportunities for interested graduate level students exist in a number of the areas previously cited.

For more information, contact the IHC at (305) 348-1607 or visit our website at <http://www.ihc.fiu.edu>.

The International Media Center

The International Media Center is the non-for-profit research and training arm of the School of Journalism and Mass Communication (SJMC) at Florida International University. The IMC was authorized by the Florida Board of Regents to encourage and assist SJMC faculty in research and training projects; administer SJMC grants and contracts, and to encourage student and faculty participation in international efforts to strengthen the free press in the democracies of the modern world.

The IMC operates several international programs designed to strengthen professional communication media in Latin America and elsewhere. The IMC provides mid-career training for journalists, provides technical assistance for public sector entities to improve media relations and public awareness programs, actively promotes press freedom issues worldwide and helps journalists and other combat corruption in the public and private sectors.

The Latin American Journalism Program, a \$13.5 million, 10-year project funded by the US Agency for International Development to strengthen journalism in 11 Latin American countries, was managed by IMC personnel. More than 6,500 journalists received short-term or long-term training under the LAJP. The program had a major impact on the quality of journalism in Central America and has been credited with playing a substantial role in strengthening journalist ethics throughout the region. IMC serves as consultant for the Centro Latinoamericano de Periodismo, or Latin American Journalism Center, in Panama City, Panama, which IMC managers founded in 1995. The center has become self-sufficient and offers training courses for print and broadcast media on a regular schedule. It also organizes the Latin American Journalism Congress every two years to bring together media owners, journalists and journalism educators for discussions about the future of the free press in Latin America.

Recent projects of the IMC include anticorruption training for journalists in Tanzania, Panama, Guatemala and other Latin American countries. These workshops focus on giving journalists the tools they need to understand the dangers of corruption, investigate corruption in the public and private

sectors, and to participate in public awareness programs. Center consultants have participated in efforts to increase public awareness recently in Armenia, Venezuela, Tanzania, Bolivia and El Salvador.

The IMC is training Paraguayan journalists on how to better report on and write about the country's judicial reforms, how to conduct better investigative reporting and how to better alert the Paraguayan public to the dangers of corruption.

Purpose of the IMC

The purpose of the IMC is to strengthen the free flow of information through education, training and research. Most of the IMC activities are focused on Latin America because of the IMC location in Miami. But the IMC is capable of working in any part of the world. All of the program's training, education, research and technical assistance activities are based on the professional standards of the free press operating separately from and independent of the state in the democracies of the modern world. The IMC conducts programs aimed at strengthening the professionalism of journalism, public relations and public information services in Latin America and elsewhere. Charles H. Green is the director of the IMC. He reports to J. Arthur Heise, dean of the School of Journalism and Mass Communication. The IMC staff has many years of professional media experience and a decade of experience in providing top-quality adult education and in managing multi-million dollar projects. Our in-house expertise is supplemented by an impressive stable of academics and professionals ready to undertake assignments in a variety of languages.

Advisory Board

While the IMC does not have a regular board of directors it does have a special advisory board appointed by the dean of the School of Journalism and Mass Communication. The purpose of this board is to advise the dean and the IMC director on center activities. Members of the advisory board are Patricia Rose, chair of the Department of Public Relations and Advertising, Michael McQueen, chair of the Department of Journalism and Broadcasting, Kevin Hall, director of the SJMC Writing Project and professor of journalism, and Bill Adams, professor of public relations.

Notable Activities

The Latin American Journalism Program, which operated from 1988 until 1998, offered more than 550

seminars, workshops and other training activities for more than 6,500 participants with more than 60,000 training days. The program encouraged journalists, journalism educators and media owners to make a critical examination of the role of a free and independent press. The IMC publishes the widest-read journalism review in the Spanish language, *Pulso del periodismo*. *Pulso* carries articles on journalists and news media. The electronic edition of *Pulso del periodismo* can be found at <http://www.pulso.org/>. The electronic magazine, funded in part by a grant from the McCormick Tribune Foundation of Chicago, keeps Spanish-speaking journalists abreast of freedom of the press issues with stories written by the journalists themselves.

Institute for Judaic Studies and Near Eastern Studies

The Institute of Judaic Studies (IJS) brings the University and the community together in a mutual effort to nurture teaching and research in academic areas which stand as the cornerstones of Western Civilization. Contemporary issues and problems provide focal points for study, dialogue, exchange and travel.

The objective of the Institute is to infuse Jewish content into the curriculum of the University at all appropriate levels. The Institute fosters scholarship and inquiry into Jewish themes leading to the development of course offerings within existing academic departments. For more information, call (305) 348-1914; judaic@fiu.edu.

Center for Labor Research and Studies

The Center for Labor Research and Studies, established in 1971 is the only labor center in Florida and one of the most dynamic in the nation. It serves students, faculty and administrators throughout the State University System as well as labor, business, community organizations, academics, policy makers, and journalists, nationally and internationally, through a series of diverse activities.

Since it was founded, the CLR&S has become recognized for its innovative national and international non-credit education programs for labor and management participants including labor relations, dispute resolution, labor history, dynamics of

worker participation, labor history and international labor issues.

Accredited through the United Association of Labor Education (UALE), the Center is one of 51 accredited labor centers in the United States. Its broad mission is to provide services to workers and their organizations. This broad mission has three specific objectives: 1) provide comprehensive, statewide labor education service; 2) provide programs designed to support faculty research in labor relations, the changing nature of work, and labor education issues; and 3) offer a multi-disciplinary credit curriculum in labor studies and conflict resolution at the University.

The credit program, offered through the College of Arts and Sciences, includes a Bachelor's Degree in Liberal Studies with a Concentration in Labor Studies and two related undergraduate certificate programs. The Center also offers a multi-disciplinary graduate Professional Certificate in Conflict Resolution and Consensus Building.

The Center's non-credit classes for Florida's labor management practitioners include open enrollment single courses, individualized courses for particular unions, as well as certificate programs.

As a Type I Center of the Florida State University System, the CLRS has major responsibility at the University for research and curriculum development on labor relations and the changing nature of work in Florida. The Center houses various projects which serve to carry out its research and training function including non-credit programs and conferences, applied and theoretical research programs including the Immigration and Ethnicity Institute.

The CLRS is located in the Labor Center building at the University Park Campus, (305) 348-2371, Fax: (305) 348-2241; www.fiu.edu/~clrs/.

Latin American and Caribbean Center

The Latin American and Caribbean Center (LACC) promotes advanced education and research on Latin America and the Caribbean, a region of intense interest to the United States. It offers undergraduate and graduate certificate programs to both degree and non-degree seeking students, combines research in the social sciences and the humanities, promotes graduate and undergraduate instruction, and offers publications and public education

activities that address the full range of issues affecting hemispheric relations.

LACC also offers a Master of Arts in Latin American and Caribbean Studies. This multidisciplinary master's program builds on FIU's strong and growing resources in area studies, most notably the more than 140 faculty members who are recognized nationally and internationally for their expertise on the region. LACC faculty span many disciplines, in the social and natural sciences, business and the humanities. For more information about the M.A. in Latin American and Caribbean Studies see the College of Arts and Sciences section in the Graduate Catalog.

Since it was founded in 1979, LACC has become one of the country's leading programs in Latin American and Caribbean studies. Through special seminars, colloquia, and other presentations sponsored by LACC, faculty and students have access to visiting scholars and other professionals with expertise on Latin American and Caribbean issues. Externally funded research programs support a continual flow of visiting Latin Americanists and Caribbeanists to the University. Through the external grants it receives, LACC contributes to the University's efforts to strengthen its Latin American and Caribbean library holdings. LACC receives funding from state and federal sources as well as private foundations, among them the Andrew Mellon, Tinker, Rockefeller, and Ford Foundations.

LACC itself houses several specialized institutes. These include the Cuban Research Institute (CRI), the only academic center in the United States devoted exclusively to the study of Cuba and Cuban-Americans. CRI offers a Cuban and Cuban-American studies certificate program for undergraduates that builds on the strength of institutional and community resources at FIU and the Greater Miami area. Also at LACC are the Intercultural Dance and Music Institute (INDAMI), which organizes regular seminars and performances by artists and scholars of the arts; the Institute for International Professional Services (IIPS), which studies and promotes the role of services in the Florida economy; and a newly created Colombian Studies Institute.

In June 1995, the Florida Legislature created the Summit of the Americas Center (SOAC) to research, analyze, and monitor the accords of the Summit of the Americas, with special attention

to Florida's role in hemispheric trade and commerce. Located within LACC, SOAC is a cooperative venture among LACC, the University of Florida's Center for Latin American Studies, and the University of Miami's North-South Center.

The State legislature also created the Florida Caribbean Institute (FCI) and the Florida-Mexico Institute (FMI) to improve Florida's cultural, commercial, and educational ties with strategic regions. Both FMI and FCI administer competitive scholarship programs which allow students from Mexico and the Caribbean to attend any institution in the State University System or the Community College System at the in-state rate.

LACC regularly places students in foreign study programs and local internships. More information is available in DM 353 University Park, (305) 348-2894 or by visiting the LACC website at <http://lacc.fiu.edu>

Lehman Center for Transportation Research (LCTR)

The Lehman Center for Transportation Research (LCTR) at Florida International University was established in 1993 in honor of Congressman Bill Lehman and his tireless efforts to make South Florida a better place for all of us. The center's vision is to become a strong 'state-of-the-art' transportation research and training facility. LCTR is committed to serve and benefit our society by conducting research to improve mobility, hence the quality of life issues, develop partnerships in the transportation industry, and educate a multidisciplinary workforce to plan, manage and implement transportation systems.

Faculty, staff and students at LCTR are involved in research related to the planning design, and operation of transportation systems; public policy; air pollution; and the application of geographic information systems and other advanced technologies such as artificial neural networks and scientific visualization in transportation. Future plans include networking with the public and private industry to collaborate on transportation related research. In addition, applied research will be conducted on, but not limited to intelligent vehicle and highway systems.

Center for Management Development

The Center for Management Development, a part of Florida International University's College of Business Administration, was established in 1979 to bring the College's resources and expertise to both local and international business communities. The Center's overriding goal is to increase the competitiveness of the organizations it serves.

The Center offers Certificate Programs in Human Resource Administration, Training and Human Resource Development, and Project Management. The Center offers professional development seminars on topics like leadership, team building, and conflict resolution. It also provides contract training and customized, in-house training programs tailored to individual organizations' needs.

In addition, the Center serves as a clearinghouse and referral center for matching the College's resources to the particular management and human resources issues facing businesses and other organizations in the community.

The Center for Management Development is located in the Ryder Business Building, University Park Campus (305) 348-4217; email: cmd@fiu.edu, or web: www.fiu.edu/~cmd.

Manufacturing Research Center (MRC)

Based on the principles of concurrent engineering, the Manufacturing Research Center (MRC) is divided into two major labs and built to provide a seamless integration of computerized engineering tools for design (CAD), manufacturing (CAM), inspection (CM), and rapid prototyping (RP) for both mechanical and electronic product design and fabrication. With input from the MRC's Industrial Advisory Board, a broad range of software and hardware systems were carefully selected as offering the best tools to serve the industry. Silicon Graphics workstations are used as the backbone of the system, on which software and hardware systems communicate and share information within the MRC network and are connected to external systems through the internet. The MRC has two main laboratories: the *Rapid Product Realization Laboratory* and the *Process Characterization Laboratory*.

The *Rapid Product Realization Laboratory* consists of a design front end, a rapid prototyping center for both mechanical and electrical components, computer-driven manufacturing and a coordinate measuring machine to verify the components and feedback into the design process. The design center consists of seven SGI workstations and a server, with backup and additional computer support by the College's Engineering Information Center (EIC), having been designated a Silicon Works Solution Center by SGI. The design center allows design intent modeled in Pro-Engineer and analyzed with finite element analysis packages.

The Rapid Prototyping Center currently consists of a 3-D Systems 250-40 laser stereolithography system, using laser cross-linked polymer for part realization, a Stratasys fused object modeler using polymer extrusion, and a Helixys Laser-Cutting layer object (paper, ceramic tape) cut-and-stack prototype system. Mechanical parts are fabricated with a Fadal VMC-15 Vertical Machining Center, a CNC turning center, a Hurco MK-2 EDM machine and a Handsvedt DS-2 traveling wire EDM. Production capabilities are enhanced by an Arburg 250-75 injection molding machine. A Brown & Sharpe coordinate measurement machine provides dimensioning analysis and geometry verification. It closes the loop from product design to prototyping and part manufacturing, allowing the evaluation and development of expert manufacturing systems. The Electronic Manufacturing Facility consists of an OZO automatic manufacturing robot that allows rapid manufacturing of printed circuit boards and high performance ceramic-based packages. The system also allows direct writing with both UV and optical photoplotters.

The *Processes Characterization Laboratory*. The manufacturing process laboratory is initially focused on injection molding processes, (including metal) with a research thrust developing in the area of rapid injection molding, using mold inserts fabricated by rapid prototyping processes. Additionally, investment casting processes with a focus on rapid prototyping, will be developed. The laboratory includes an Auberg injection molder, programmable process development furnaces (hydrogen, vacuum, inert air) up 1600°C, and a 190-ton press. The materials characterization lab consists of a field emission scanning electron microscope, a

standard SEM (both with light element non-dispersive X-ray spectroscopy), a 200 keV transmission electron microscope with sample preparation capabilities (ion mill, dimpler, lapping fixtures), an X-ray diffractometer with 1600°C furnace, thermal analysis (DSC, TGA, DMA, thermal expansion), mechanical testing (uniaxial and cyclic loading, creep), and sample preparation and inspection capabilities.

Training: The MRC and EIC regularly schedule training courses in Pro/E, visual C, and other industry-specific software at substantial discounts to our members and with flexible schedules. Course instructors typically come from industry, bringing real-life hands-on experiences to the class.

The MRC and Industry: The nearly 7000 manufacturers in the State of Florida, representing over 40%, reside in the tri-county area served by FIU, with the largest concentration in Miami-Dade county. However, without strong participation in the upgrading of manufacturing practices, many current manufacturers will become obsolete in the changing realities of the global economy of the 21st century. The primary objective of the MRC is to prepare manufacturing engineers for an era where enterprises will be mostly information-based and international in nature. Numerous new and more effective engineering data management tools, product development software, electronic cataloging and electronic commerce are rapidly emerging, speeding up the advent of "manufacturing over the Internet"

Membership: The MRC provides the access for industry to utilize the capabilities and resources of the College of Engineering and its outstanding faculty. The cost of membership is a donation to the FIU Foundation, and therefore tax deductible.

For more information, contact <http://www1.eng.fiu.edu/MRC> Dr. W. Kinzy Jones at (305) 348-2345 or Dr. Chin-Sheng Chen at (305) 348-3753.

Metropolitan Center

The Metropolitan Center (MC) exemplifies the urban theme in FIU's Strategic Plan "Reaching for the Top": service, first of all, to the people of Southeast Florida through research, teaching, and service to better understand and ameliorate pressing urban problems. The overall goal of the MC is to provide the best information available to benefit local

decision makers in a shared quest to preserve and improve our social, economic, built and natural environments, to produce 'livable communities' and the highest attainable quality of life. To achieve these aims, the MC organizes university resources – faculty and students, knowledge bases, expertise, and technology – recruits external expertise, and confers with decision makers from governments, community organizations, and the business sector to examine issues of critical concern to South Florida. It conducts applied urban research and provides technical assistance and training that support community-defined initiatives and priorities. The Center's projects can be single-classified as Economic and Community Development, Databases for Planning and Evaluation, Transportation, Human Services, Environment, Justice Systems, Health, and Public Administration. In practice, many projects can be multiple-classified and require multi-disciplinary perspectives and methodologies.

The MC was created in 1998 under FIU's Quality Improvement Initiative. The MC subsumes FIU's Institute of Government (IOG), and the FAU-FIU Joint Center for Environmental and Urban Problems (JC), a HUD-funded Community Outreach Partnership Center (COPC), and administers the Dewey Knight Center for Public Service. It is administratively within the College of Health and Urban Affairs (CHUA), but initiates collaborations with other colleges, schools, departments, programs, centers and institutes in pursuit of its objectives.

The Metropolitan Center is located in downtown Miami at 150 SE 2nd Avenue, Suite 1201, for more information call (305) 349-1251 or fax (305) 349-1271, or visit our website www.fiu.edu/~metcntr. Its Director is Jim Rivers, Ph.D., riversj@fiu.edu.

National Policy and Resource Center on Nutrition and Aging

Vision: reduce nutrition risk and food insecurity and promote good nutritional practices among older adults.

Mission: work with the Federal Administration on Aging (AoA) and the USDA to provide national leadership in Aging, Nutrition, Extension Networks; place food and nutrition services in the mainstream of home and community based social, health and

long-term care delivery systems serving older individuals.

The Center helps Elderly Nutrition Programs, the cornerstone of the Older Americans Act, improve their food and nutrition services, use resources more effectively, and adapt to changes in demographics, health care and public policy. The Center assists the Aging Network that includes more than 2200 local nutrition projects serving congregate and home delivered meals, 57 state and territory agencies on aging, 227+ tribal organizations and 650+ area agencies on aging. The Center provides technical training and conducts policy analysis and best practices research. With the rapidly increasing numbers of frail, home-bound older adults, the Center is dedicated to (1) risk-based screening to identify the most nutritionally needy, (2) expansion of food and nutrition services in health, extension and social service programs, and (3) integrating food and nutrition services into interdisciplinary care management to improve quality of life, promote independence, and decrease early nursing home admissions and hospitalizations. A USDA-sponsored project will strengthen outreach in rural communities to reduce critical service gaps for at-risk older adults.

Public/private partnerships enable the Center to work with programs, professionals, older individuals and caregivers to strengthen programmatic and personal commitments to food and nutrition as foundations for good health.

The Center can be reached at (305) 348-1517, fax (305) 348-1518, email: nutredr@fiu.edu or online <http://www.fiu.edu/~nutredr> Nancy S. Wellman, PhD, RD, FADA, Director; Dian O. Weddle, PhD, RD, FADA, Co-Director; Lester Rosenzweig, MS, RD, Associate Director.

Institute for Public Management and Community Service

The Institute for Public Management and Community Service was re-established by the College of Urban and Public Affairs at Florida International University in 1994. Since then, the Institute has had extensive involvement in governance reform projects in North, Central and South America as well as Africa, Eastern Europe and Asia. These projects have involved the Institute's Director, Assistant Director and other staff in

working with many national legislative bodies, several national chief executives and numerous government ministers. Institute projects have focused on issues of executive-legislative relations, legislative development, decentralization, civil service reform, the strengthening of local and other sub-national government and the promotion of citizen participation and governmental and political accountability. In addition to its extensive technical assistance and consulting activities, the Institute has carried out a wide variety of research and training activities, both within and outside of the United States.

In its work in Paraguay, Argentina, Chile and Peru, Institute staff have worked very closely with the leadership of the government of Miami-Dade County in carrying out a wide variety of local government technical assistance and democratic development activities. The Institute continues its work with Miami-Dade County through its organization for the County each year of the annual Hemispheric Mayors Conference, which typically brings together 550 municipal leaders from throughout Latin America, the Caribbean and North America. This annual gathering has come to be recognized throughout the Hemisphere as the principal recurring meeting on issues of local governance in Latin America. In addition, the Institute has organized numerous conferences and seminars throughout the Hemisphere.

The Director of the Institute, Dr. Allan Rosenbaum, has worked in local, state and national government in the United States and has consulted extensively both within the United States and in most parts of the world and for the United Nations. Mrs. Cristina Rodriguez-Acosta, the Institute Deputy Director has had considerable experience in various parts of Latin America and oversaw the Institute's extensive activities in Paraguay. Allan Rosenbaum, (305) 348-1271; rosenbau@fiu.edu.

Institute for Public Opinion Research

The Institute for Public Opinion Research (IPOR), is a research arm of the School of Journalism and Mass Communication at Florida International University. IPOR was founded in 1983 to provide decision makers with reliable and timely information on how a scientifically selected sample of the

public stands on important issues, and to enhance the dialogue on major issues among decision makers, the media, and the people of Florida. IPOR provides professional services in all aspects of survey research including study and sample design, questionnaire development, interviewing, data entry, data analysis, and report writing. IPOR is a member of national Network of State Polls (NNSP).

IPOR has conducted hundreds of surveys for FIU researchers, government agencies, and the private sector. These projects include eleven years of the FIU/Florida Poll, one of the most comprehensive public opinion surveys conducted in the country. The FIU/Florida Poll asks Floridians how they feel about the important issues facing them -- crime and drugs, education, transportation, health, taxes, politics, etc., and tracks these questions year after year to determine whether and how views are changing.

IPOR is constantly working with new technology and data sources to develop and test new sampling and interviewing methodologies. From the use of qualitative techniques to make quantitative surveys more efficient, enjoyable and valid for respondents to geographic information system analysis in sample design and data analysis, IPOR provides state-of-the-art survey methodology to researchers.

IPOR conducts its telephone polls from its phone research laboratory at the Biscayne Bay Campus of FIU. All IPOR project personnel are well-paid professionals who are specially trained for each project and who are monitored for adherence to IPOR's procedures and guidelines.

IPOR is located in AC11, Room 301. For more information call (305) 919-5778; fax (305) 919-5242, or send email to gladwin@fiu.edu or visit our website at <http://www.fiu.edu/orgs/ipor>

Institute for Public Policy and Citizenship Studies

The Institute for Public Policy and Citizenship Studies was founded in 1985 to offer students, faculty, and the community alternative learning opportunities in public policy and citizenship development. Four key objectives have guided the Institute's programs:

1. To provide non-traditional educational opportunities to the student body on the responsibilities and opportunities of citizenship.
2. To assist students and faculty in understanding the impact that public

policy has on their daily lives and in their career pursuits.

3. To promote interdisciplinary research efforts among faculty on local and national policy matters.

4. To encourage joint university and community efforts on local policy issues.

The Institute sponsors the Student Honors Mentor Program, a semester-long opportunity for students to meet and interact with peers and faculty members from other academic disciplines. The Mentor Program encourages participants to examine a public policy issue in a small group setting through discussions, research, or innovative projects. In providing an alternative mode of learning, the Institute hopes to give students practical experience in community decision-making and problem-solving.

The Institute also sponsors and supports the annual Intergenerational Public Policy Summer Institute which teams elder civic activists with high school students, many of whom are at-risk.

The Institute offers an interdisciplinary and practical approach to the study of public policy with its Certificate Program in Public Policy Studies. See 'Certificate Programs' for further information.

The Institute also works in cooperation with other FIU centers, including the Women's Studies Center, The Center on Aging, The Labor Center, and The Latin American Caribbean Center.

In addition, the Institute sponsors conferences and events focusing on key policy issues that are salient within our local community. Nationally known speakers and University faculty are invited to present their research findings and perspectives on a variety of issues ranging from citizenship education in Miami-Dade County to the ethical implications of an aging society to the impact of government regulations on the fishing industry. The conferences are designed to offer the public and university community additional resources in understanding the policy problems that we, as a community, face on a daily basis.

The Institute is located in LC 220, University Park, (305) 348-2977.

Ryder System Center for Business Logistics

The Ryder System Center for Business Logistics, housed in Florida International University's College of

Business Administration, exists to develop and promote academic, research, and continuing education programs in the field of logistics.

The College offers an undergraduate academic track in logistics supported through the Center that prepares graduates to pursue careers in a variety of fields within the spectrum of logistics—technology, strategy, transportation, globalization, integration and more. Its academic and faculty development activities include the design and construction of a virtual logistics technology demonstration laboratory.

The Center also sponsors and coordinates seminars, conferences, and outreach services for business and professional publics—both within and beyond the South Florida region—on logistics and enterprise resource planning (ERP).

The Center is located in the Ryder Business Building, University Park Campus, (305) 348-2751.

Center on Aging

The Center on Aging offers a multidisciplinary program in gerontology with a unique public sector focus. It is the mission of the Center to serve as a focal point for applied public policy and practice research; to design and implement comprehensive gerontological education and training programs for students, professionals and older learners; and to demonstrate new and innovative concepts to serve older persons. The Center seeks to achieve its goals through a wide variety of educational activities designed to further the pursuit of knowledge and understanding about aging in today's society. This includes a focus upon evaluation of public policy as it affects older adults in Florida, the United States, and throughout Latin America and the Caribbean.

Objectives: The Center supports, sponsors, conducts, and participates in a wide range of activities aimed at improving the quality of life for older adults. Pursuant to its mandate for education and training, research, and community service, the Center is engaged in:

1. Development of gerontology education across disciplines throughout the University community.

2. Expanded opportunities for training and professional development of persons working with or planning to work with older people.

3. Research with special emphasis on public policy and practice in the areas of healthy aging, new roles and opportunities, long term care, and justice systems.

4. A wide range of lifelong learning and educational opportunities for older people.

5. Collaboration with public agencies and community organizations aimed at improving the effectiveness of programs for older adults.

The Center consists of three components:

Research: Focus on applied policy and practice research, as well as promotion of research involving faculty from a variety of disciplines within the University. There is an emphasis on potential applications of research findings by policy makers, health and social services practitioners, and the private sector.

Education and Training: Coordination of credit and non-credit certificate programs for undergraduate and graduate students and for practitioners in the field of aging. The Center delivers training seminars and workshops both at the University and on line.

The Institute for Lifelong Learning, a continuing education program, offers a broad array of continuing education courses for the older learner and is exploring development of additional educational and cultural opportunities for older persons.

The Center is located in ACI 234, Biscayne Bay Campus, (305) 919-5550, rothman@fiu.edu.

Women's Studies Center

The Women's Studies Center, established in 1982, is a university program with a multipurpose mission that focuses on the development and coordination of academic women's studies courses and the support of research on gender. In addition, the center coordinates extracurricular programming on gender issues for faculty, staff, students, and the general community.

The center offers a Bachelor of Arts degree in women's studies, a certificate program, and courses as electives in most disciplines. The courses in women's studies provide an opportunity for the study of the historical, political, economic, literary, social, and cultural roles of women and of the function of gender in diverse societies and cultures. The courses are coordin-

ated through various university departments, and are open to women and men alike, as a balance to traditional education. In Women's Studies classes, students explore the range of women's experiences, from their struggle for equality to their contributions in politics, history, literature, psychology, and other subjects. Through this rich discipline, sexual bias throughout society—in the workplace, in school, and at home—is analyzed through historical study and new theory. Equal importance is given to the commitment to discover and teach ideas and knowledge about global concerns, nationality, race, ethnicity, class, age, and sexual identity. The program is directed toward specialists and generalists alike. Students should refer to the Arts and Sciences women's studies section for degree and certificate details.

The center fosters faculty research in Women's Studies through various means including a publications series; research seminars; lecture series; and conferences, such as an annual Women's History Month Conference. In addition to coordinating academic courses and research in Women's Studies, the program provides a place and opportunity for extracurricular activity. The center offers assistance on issues of inequality and access to information on gender issues and concerns. The resources of the center are used by the academic and general community, and everyone is welcome to visit or inquire about our services.

The center is located in DM 212, University Park, (305) 348-2408.

Florida's Statewide Course Numbering System

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System. This common numbering system is used by all public postsecondary institutions in Florida and by fourteen participating private institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

Each participating institution controls the title, credit, and content of its own courses and assigns the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for

that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Description of the content of courses are referred to as "course equivalency profiles."

General Rule for Course Equivalencies

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between the participating institutions that offer the course, with a few exceptions. (Exceptions are listed below).

For example, a survey course in social problems is offered by 31 different postsecondary institutions. Each institution uses "SYG-010" to identify its social problems course. The level code is the first digit and represents that year in which students normally take this course at a specific institution. In the SCNS taxonomy, "SYG" means "Sociology, General," the century digit "0" represents "Entry-Level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents "Social Problems."

In science and other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one participating institution to another is guaranteed in cases where the course to be transferred is offered by the receiving institution and is identified by the same prefix and last three digits at both institutions. For example, SYG 1010 is offered at a community college. The same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer

credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed which have not been designated as equivalent.

Sometimes, as in Chemistry, a sequence of one or more courses must be completed at the same institution in order for the courses to be transferable to another institution, even if the course prefix and numbers are the same. This information is contained in the individual SCNS course equivalency profiles for each course in the sequence.

The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix used to identify the course.

Authority for Acceptance of Equivalent Courses

State Board of Education Rule 6A-10.024(17), Florida Administrative Code, reads:

When a student transfers among institutions that participate in the common course designation and numbering system, the receiving institution shall award credit for courses satisfactorily completed at the previous participating institutions when the courses are judged by the appropriate common course designation and numbering system faculty task forces to be equivalent to courses offered at the receiving institution and are entered in the course numbering system. Credit so awarded can be used by transfer students to satisfy requirements in these institutions on the same basis as native students.

Exceptions to the General Rule for Equivalency

The following courses are exceptions to the general rule for course equivalencies and may not be transferable. Transferability is at the discretion of the receiving institution:

1. Courses in the _990-_999 series
2. Internships, practical, clinical experiences, and study abroad courses
3. Performance or studio courses in Art, Dance, Theater, and Music
4. Skills courses in Criminal Justice
5. Graduate courses

College preparatory and vocational preparatory courses may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to Lynette Housty in the Registrar's Office at (305) 348-2320, or the Florida Department of Education, Office of Postsecondary Education Coordination, 1101 Florida Education Center, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling telephone number (904) 488-6402 or Suncom 278-6402.

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Cheryl Nowell

Director, Judicial and Mediation Services
Karen Dthosh

Director, Women's Center
Karen Garner

Director, Office of Employee Assistance
Nancy Petenbrink

Director, Residential Life
Cathy Akens

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Dean, University Outreach
David Grossman

Acting Associate Dean, University Outreach
Gwen Weinberger

Director, Distance Learning,
Jeffrey Miller

Acting Director, Kovens Conference Center
Christian Pastner

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<i>Head Men's Basketball Coach</i>	Donnie Marsh
<i>Head Women's Basketball Coach</i>	Cindy Russo
<i>Head Cross Country/ Track Coach</i>	Jessica Carter
<i>Head Women's Golf Coach</i>	David Pezzino
<i>Head Men's Soccer Coach</i>	Karl Kremser
<i>Head Women's Soccer Coach</i>	Everton Edwards
<i>Head Softball Coach</i>	Kim Gwydir
<i>Head Women's Tennis Coach</i>	Ronnie Reis-Bernstein
<i>Head Volleyball Coach</i>	Dulcie "Cookie" Stevens
<i>Associate Athletic Director, External Affairs</i>	Jose Sotolongo
<i>Associate Athletic Director, Internal Affairs</i>	Julie Berg-McGraw
<i>Assistant Athletic Director, Campus Recreation</i>	Rob Frye
<i>Assistant Athletic Director, Compliance</i>	Mike Becker
<i>Assistant Athletic Director, Media Relations</i>	Rich Kelch
<i>Assistant Athletic Director, Facilities and Operations</i>	Barton Mondell

Special Course Directory

In addition to the regular courses listed in the catalog*, special courses may be offered using the State Wide Course Numbering System. The following table provides and inventory of course numbers by course type.

Course Type	Course Number	Undergraduate			Graduate		
		Lower	Upper	Post Bacc	Masters	Doctoral	
Directed Readings/Independent Study	-900 through -909	1--- or 2---	3--- or 4---	5---	6---	7---	
Directed Independent Research	-910 through -919	XXXX	3--- or 4---	5---	6---	7---	
Colloquiums/Symposiums/Workshops	-920 through -929	1--- or 2---	3--- or 4---	5---	6---	7---	
Special Topics/Seminars	-930 through -939	1--- or 2---	3--- or 4---	5---	6---	7---	
Internships/Practicum/Clinical							
Practice/Cooperative Education	-940 through -949	1--- or 2---	3--- or 4---	5---	6---	7---	
Activities/Performances/Study Abroad	-950 through -959	1--- or 2---	3--- or 4---	5---	6---	7---	
Preliminary/Comprehensive Examinations	-960 through -969	XXXX	XXXX	5---	6---	7---	
Thesis/Thesis Defense	-970 through -979	XXXX	XXXX	XXXX	6---	XXXX	
Dissertation/Dissertation Defense	-980 through -989	XXXX	XXXX	XXXX	XXXX	7---	
Experimental Courses/Reserved for Special Institutional Purposes	-990 through -999	1--- or 2---	3--- or 4---	5---	6---	7---	

* FIU is in the process of re-numbering all special courses to comply with the State Wide Course Numbering sequence above. Therefore, some of the special courses listed in the catalog may change.

School of Architecture

School of Architecture

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Ted Baker, Associate Professor

Nathaniel Belcher, Assistant Professor

Juan A. Bueno, Associate Professor,

Director, Landscape Architecture

Claudia Busch, Assistant Professor

Marta Canavés, Assistant Professor

Dennis Jenkins, Assistant Professor

and Acting Director, Interior Design

Gisela López-Mata, Associate

Professor

Irail E. Majzub, Professor

Marilyn R. Nepomechie, Assistant

Professor

Esa Ozdenorol, Assistant Professor

Nicolás Quintana, Assistant Professor

Gray Read, Assistant Professor

Camilo Rosales, Associate Professor,

Director, Architecture

Kevin Smith, Assistant Professor

John Stuart, Associate Professor,

Director, Graduate Program in

Architecture

Mario Valbuena, Visiting Assistant

Professor

Master of Architecture

The Master of Architecture Program, fully accredited in 1999 by the National Architectural Accrediting Board, prepares students for research and practice in the fields of architecture. It includes the study of design, advanced technologies in architectural practice, and the history and theory of architecture.

The Master of Architecture Program comprises three tracks that offer flexible courses of study toward the professional MARCH degree to students from various academic backgrounds. Students with no previous experience in architecture follow the professional Track 3, consisting of 102 credit hours to be completed in approximately three years. Students with a four-year undergraduate degree in architecture follow the Professional Track 2, consisting of 60 credit hours to be completed in approximately two years. Students with a professional five-year undergraduate degree in architecture follow the Non-Professional Track 1, consisting of 36 credit hours to be completed in one year. All students in the program are required to undertake a thesis project as the culmination of their course of study at the School of

Architecture. Students may have no more than one outstanding elective by the time they begin their thesis semester.

Admission to the Master of Architecture Program is determined by an extensive portfolio review that examines evidence of creative work, academic success, and professional achievement. Students who have successfully completed the portfolio review process must meet the minimum requirements of an undergraduate GPA of 3.0 or a GRE score of 1000 (or better) to be fully admitted in the graduate program.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit US professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Masters degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Master of Landscape Architecture

The Graduate Program in Landscape Architecture prepares students for research and practice while focusing on the design, planning, and management of tropical and subtropical landscapes. The unique natural and cultural environments of South Florida, tropical America, the Bahamas, and the Antilles provide firsthand experience of a wide range of landscapes; the study, enrichment, and preservation of which are emphasized through relevant course work, field trips, and service activities. The Everglades and Biscayne National Parks, Fairchild Tropical Garden, and Vizcaya Palace and Gardens are among the many regional resources readily available to students enrolled in the

Program. The School of Architecture also offers study and research opportunities in cooperation with institutions in tropical America and mediterranean Europe.

A flexible curriculum accommodates individual research interests within a rigorous academic framework. The School offers two options within the Program. The Professional Degree Option is intended for individuals without a degree in Landscape Architecture. This course of study leading to the first professional Master of Landscape Architecture degree is accredited by the Landscape Architectural Accreditation Board, an autonomous committee of the American Society of Landscape Architects. The Post-Professional Degree Option is intended for individuals with an undergraduate degree in landscape architecture who wish to pursue advanced professional study.

Professional Degree Option

Individuals with a Bachelor of Arts or a Bachelor of Science, or equivalent, from an accredited institution are eligible for admission to the Program provided University requirements are met. Applicants must also submit a portfolio of creative work for School review in the admission process. Three years of full-time study in residence are normally required. However, a part-time study option is available subject to the review of the Program. Satisfactory completion of 84 credits in the following course of study is required.

Landscapes	6
History and theory	6
Methods	12
Studio	30
Construction	9
Practice	6
Thesis and concentration	15

Individuals with an undergraduate degree in planning, urban design, or architecture from an accredited professional program, or with a pre-professional undergraduate degree in planning, landscape architecture, urban design, or architecture may be granted advanced standing, not to exceed 24 credits for undergraduate courses with a grade of 3.0 or better on a 4.0 point scale.

Individuals with a graduate degree in planning, urban design, or architecture from an accredited professional program may be granted advanced

standing, not to exceed 48 credits for graduate courses with a grade of 3.0 or better on a 4.0 point scale.

Post-Professional Degree Option

Individuals with an undergraduate degree in landscape architecture from an accredited professional program are eligible for admission to the Program provided University requirements are met. Two years of full-time study in residency are normally required. However, a part-time study option is available subject to the review of the Program. Satisfactory completion of 60 credits in the following course of study is required.

Studio	18
Thesis and concentration	42

Awards and Scholarships

The following scholarships and awards are presented to students fully admitted to the Graduate Program in Landscape Architecture who have demonstrated outstanding achievements in their studies.

American Society of Landscape Architects Awards. On nomination by the Program faculty, the American Society of Landscape Architects awards a Certificate of Honor and a Certificate of Merit to the two students who have demonstrated a high degree of academic scholarship and of accomplishments in skills related to the art and technology of landscape architecture.

Sigma Lambda Alpha Honor Society. Each year, upon nomination by the Program faculty, the Alpha Chi Chapter of the Sigma Lambda Alpha Honor Society inducts the outstanding students in the Program.

The Ernest and Virginia Makemson Memorial Endowed Scholarship Fund. This fund provides support for students who have demonstrated interest and experience in restoring and preserving Florida's natural and cultural environment through the practice of landscape architecture.

Ownership of Student Work

Student work, submitted to the School in satisfaction of course or degree requirements, becomes the physical property of the School. However, students retain all rights to the intellectual property of such work. This work may include papers, drawings, models, and other materials. The School assumes no responsibility for safeguarding such materials. At its discretion, the School may retain,

return, or discard such materials. The School will not normally discard the materials of currently enrolled students without giving the student a chance to reclaim them.

Course Descriptions

Definition of Prefixes

ARC-Architecture; IND-Interior Design; LAA-Landscape Architecture
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ARC 5035 Film and the Architecture of Modern Life (3). Critical overview of social and spatial implications of film on architecture and design over the course of the 20th century.

ARC 5075 Formative Studio (6). Introduction to concept development, spatial expression, and representational techniques in architecture.

ARC 5176C Computer Practices in Design II (3). Advanced study in concepts, issues and methods in computer-aided architectural design. (SS)

ARC 5205 Advanced Design Theories (3). This seminar analyzes western and non-western examples of critical ideology through the investigation of key historical moments and current architectural theory and practice.

ARC 5xxx Legal Aspects of Design Practice (3). Special obligations and privileges of a design professional, common contract forms, issues of liability, copyright, insurances and general organization and supervision. Ethics and legal responsibilities.

ARC 5xxx Building Systems (3). Conceptual framework for design of building assemblies, understanding of construction technologies and properties of building materials. Building systems and pre engineered components are presented and analyzed.

ARC 5361 Graduate Design I (6). Exploration of highly articulated projects of small scale utilizing innovative research methods to strengthen and clarify design concepts taken to a detailed resolution. Prerequisite: Graduate standing.

ARC 5362 Graduate Design 2 (6). This course explores architectural projects of medium to large scale applying innovative building technologies to a highly resolved spatial organization. Prerequisite: Graduate standing.

ARC 5750 Architectural History of the Americas (3). Historical analysis of the development of built forms and styles in tropical and subtropical Americas, investigating its socio-political and artistic context. Prerequisite: Permission of the instructor.

ARC 5786 Urbanism: Social History of the Built Form (3). This course introduces students to historical analysis, theories, techniques and aesthetics as they relate to urban design.

ARC 5803 Preservation Architecture: Issues and Practices (3). This course explores issues and practices of architectural preservation as an integral concern of architecture.

ARC 5xxx Site Development in Architecture (3). Issues, controls and methods pertinent to the physiographic, topographical, and cultural determinants of site design in architecture.

ARC 5xxx Environmental Systems in Architecture (3). Development of an understanding of environmentally sensitive design. Climate and region as a major determinant of building design; sustainability, energy conservation, passive solar design, daylight and natural ventilation will be examined.

ARC 5xxx Alternative Studio (6). Topical studies in architecture, on issues of current interest, with the participation of visiting lecturers, or abroad. (SS)

ARC 5916 Innovations in Building Technology (3). Experimental approach to new materials and methods applicable to the field of construction. Prerequisite: Permission of the instructor. (SS)

ARC 5933 Special Topics in Architecture (1-3). Course to address current special topics of interest developed in cooperation with private or public sector, building or professional associations. Prerequisite: Permission of the academic advisor.

ARC 6296 Professional Development (3). In-depth exploration of current legal, administrative and financial aspects of architectural practice.

ARC 6356 Graduate Design 3 (6). Architectural project emphasizing design development preparation of details and design documents for buildings of intermediate complexity.

ARC 6906 Independent Study (1-6). Independent study will allow students to pursue a specialized area of study

under individual faculty supervision. Prerequisite: Permission of the instructor.

ARC 6910 Thesis Seminar (3). This course requires students to propose a thesis, arrange a thesis committee and conduct research prior to the thesis term. Prerequisite: Graduate Design I & 2.

ARC 6930 Graduate Seminar (1-3). Topical seminar designed especially for direction by visiting professionals or visiting faculty from other disciplines. Prerequisite: Permission of the instructor.

ARC 6947 Research Methods in Architecture (3). Advanced research methodology in design fields focusing on data acquisition, analysis and interpretation. Presentation formats, statistical analysis, and hands-on experience. Prerequisite: Graduate standing and permission of the instructor.

ARC 6xxx Thesis (6). Supervised graduate research and writing of a thesis on an architectural topic to be chosen by student with the approval of a graduate committee.

LAA 5233 Theory of Planting Design (3). Study of principles and methods related to the ecological, functional, and aesthetic use of vegetation in landscape architecture. Prerequisite: Program approval. (SS)

LAA 5235 Theory of Landscape Architecture (3). Critical review of the environmental parameters, morphological concepts and ideological principles that generate form and meaning in landscape architecture. Prerequisite: LAA 5716. (S)

LAA 5243 Regional Landscape Issues (3). Exploration of the landscape as cultural construct of social, economic, and scientific values relevant to regional issues of land use and management. Prerequisite: Program approval. (SS)

LAA 5335 Landscape Development (3). Technical aspects of the design and specification of earthwork, including materials, products, and methods of installation used in landscape development. Prerequisite: LAA 5371. (F)

LAA 5371 Computer Practices in Landscape Architecture (3). Computer applications of graphics, modeling, and animation techniques used in

landscape architecture. Prerequisites: Program approval. (S)

LAA 5424 Landscape Construction (3). Technical aspects of the design and specification of sitework, including materials, products, and methods of installation used in landscape construction. Prerequisite: LAA 5335. (S)

LAA 5425 Landscape Construction Documentation (3). Production of landscape construction documents, including drawings and project manual with bidding documents, contract documents and technical specifications on the computer. Prerequisite: LAA 5424. (S)

LAA 5521 Tropical Landscapes (3). Study of the structure, function, and change in the natural and cultural landscapes of tropical and subtropical regions. Prerequisite: Program approval. (S)

LAA 5540 Landscape Horticulture (3). Overview of horticultural management practices related to the growth, transport, installation, and maintenance of vegetative materials used in landscape architecture. Prerequisite: Program approval. (SS)

LAA 5652 Formative Studio (6). Introduction to concept development, spatial expression, and representational techniques in landscape architecture. Prerequisite: Program approval. (F)

LAA 5653 Site Studio (6). Application of landscape architecture principles and methods to site design in tropical and subtropical contexts. Prerequisite: LAA 5652. (S)

LAA 5715 History and Theory of Architecture (3). Overview of the history and theory of architecture and urban design from antiquity to the present. Prerequisite: Program approval. (SS)

LAA 5716 History of Landscape Architecture (3). Historical survey of the principal sites and traditions manifested in the evolution of landscape architecture and urban design from antiquity to the present. Prerequisite: Program approval. (F)

LAA 5XXX Landscape Structures (3). Production of Landscape construction details for structures and systems used in Landscape architecture. Prerequisite: LAA 5424. (F)

LAA 5XXX Introduction to Computer Practices in Landscape

Architecture (3). Computer application of drafting and design techniques used in landscape architecture. Prerequisite: Program approval.

LAA 6215 Professional Practice in Landscape Architecture (3). Study of the ethical, legal, financial, and managerial aspects of professional practice in landscape architecture. Prerequisite: Program approval. (S)

LAA 6222 Communications in Landscape Architecture (3). Methods of verbal and graphic presentations, workshops, and publications used in landscape architecture. Prerequisite: Program approval. (SS)

LAA 6245 Theory of Urban Design (3). Critical review of the principal theories of urbanism that have influenced the fabric and image of the city in Western history. Prerequisite: LAA 5235 and LAA 5716. (SS)

LAA 6246 Typology of Landscape Architecture (3). Critical examination of the origin, development and transformation of form and meaning in modern and postmodern landscape architecture and urban design. Prerequisite: LAA 5235 and LAA 5716. (SS)

LAA 6247 Modern Landscape Architecture (3). Critical review of the origins and development of modern and post modern expressions in landscape architecture. Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6342 Landscape Aesthetics (3). Critical review of the assessment models used to evaluate the aesthetic quality of the landscape. Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6373 Sound in Landscape Architecture (3). An examination of the ecological, acoustic, aesthetic, and historical aspects of the sonic environment. Prerequisites: LAA 5235 and LAA 5716. (SS)

LAA 6382 Methods of Environmental Analysis (3). Theories and methods of the organization, analysis, and interpretation of cartographic data using digital geographic information systems. Prerequisites: Program approval. (SS)

LAA 6541 South Florida Landscapes (3). Study of the structure, function, and change in the natural and cultural landscapes of tropical and subtropical Florida. Prerequisite: Program approval. (S)

LAA 6551 Sustainable Landscapes (3). Study of the principles that sustain a balance between natural resources and human aspirations in the landscapes of tropical and subtropical regions. Prerequisite: LAA 6541. (SS)

LAA 6654 Community Studio (6). Application of landscape architecture principles and methods to community planning and design in tropical and subtropical contexts. Prerequisite: LAA 5653. (F)

LAA 6655 Regional Studio (6). Application of landscape architecture principles and methods to regional management, planning, and design in tropical and subtropical contexts. Prerequisite: LAA 6654. (S)

LAA 6745 Preservation of Landscape Architecture (3). Critical examination of the formation and preservation of historic sites with emphasis on interpretation, analysis and evaluation of cultural landscapes and urban places. Prerequisite: LAA 5235 and LAA 5716. (SS)

LAA 6835 Urban Studio (6). Application of interdisciplinary principles and methods to urban planning and design in tropical and subtropical contexts. Prerequisite: LAA 6655. (F)

LAA 6905 Independent Study (1-3). Work under the direction of faculty on a particular aspect of landscape architecture. Prerequisite: LAA 6382, LAA 6916. (F,S)

LAA 6915 Supervised Research (1-5). Work under the supervision of faculty in preparation for a master's thesis or a master's project in landscape architecture. Prerequisite: LAA 6382, LAA 6916. (F,S)

LAA 6916 Research Methods (3). Methods of information search, data interpretation, and hypothesis formulation used in landscape architecture research. Prerequisite: Program approval. (SS)

LAA 6935 Graduate Seminars (1-3). Course to address topical issues in landscape architecture. Prerequisite: Program approval. (F,S,SS)

LAA 6936 Special Topics (1-3). Course to address topics not yet offered in the landscape architecture curriculum. Prerequisite: Program approval. (F,S,SS)

LAA 6970 Master's Project (1-6). Completion of project by candidate for the degree of Master of Landscape

Architecture. Prerequisite: LAA 6915.(S)

LAA 6971 Master's Thesis (1-6). Completion of thesis by candidate for the degree of Master of Landscape Architecture. Prerequisites: LAA 6915. (S)

School of Architecture

Dean William G. McMinn

Associate Dean Jaime Canavés

Faculty

Andía, Alfredo, MDes, Ph.D.

*(University of California-Berkeley),
Assistant Professor, Architecture*

Baker, Ted, FASLA, MLA, MDes,
*(Harvard University), Associate
Professor, Landscape Architecture,*

Belcher, Nathaniel, M.Arch, A.I.A.
*(Harvard University), Assistant
Professor*

Bueno, J.A., MLA, ASLA, PE
*(Harvard University), Associate
Professor, Director, Landscape
Architecture*

**Busch, Claudia, M.S. (Columbia
University), Assistant Professor,
Architecture**

Canavés, Jaime, AIA, M.Arch
*(University of Florida), Associate
Professor, Architecture and
Associate Dean*

Canavés, Marta, MLA, IIDA
*(Florida International University),
Assistant Professor, Interior Design,
Landscape Architecture*

**Jenkins, Dennis, B.A. (San Jose State
College), Assistant Professor and
Acting Director, Interior Design**

**López-Mata, Gisela, M.S. (Pratt
Institute), Associate Professor,**

Majzub, Iraj E., D Arch., R.A.
*(University of Torino), Professor,
Architecture*

McMinn, William G., FAIA, M.A.
*(University of Texas), Dean and
Professor, Architecture*

Nepomechie, Marilys, AIA, M.Arch,
**R.A. (Massachusetts Institute of
Technology), Assistant Professor
Architecture**

Ozdenoro, Esra, MLA, Ph.D.
*(Louisiana State University),
Assistant Professor, Landscape
Architecture*

Quintana, Nicolás, NCARB
*(University of Havana), Visiting
Professor, Architecture*

Rosales, Camilo, M.Arch., R.A.
*(Harvard University), Associate
Professor, Director, Architecture*

**Smith, Kevin, M. Arch. (Virginia
Polytechnic and State University),
Assistant Professor, Architecture**

Stuart, John A., AIA, M.Arch,
*(Columbia University), Associate
Professor*

Valbuena, Mario, M. Arch
*(Texas A & M University), Visiting
Assistant Professor, Architecture*

College of Arts and Sciences

College of Arts and Sciences

The College of Arts and Sciences furthers the study of fundamental intellectual disciplines, and serves the University's other Colleges and Schools. The College grants Bachelor's, Master's, and Ph.D. degrees. In addition, the College serves students who need to complete general education and core curriculum requirements, and other requirements, in order to enroll in specific disciplines or professional programs.

The College is composed of 19 departments, in addition to the School of Computer Science, the School of Music and several interdisciplinary programs.

Graduate Programs

The College has academic programs leading to Master's degrees in African-New World Studies, biology, chemistry, comparative sociology, computer science, creative writing, economics, English, environmental studies, environmental and urban systems (offered jointly with the College of Engineering and Design), forensic science, geology, history, international studies, Latin American and Caribbean studies, linguistics, mathematical sciences, music, music education, music education-modified master's, physics, political science, psychology, religious studies, Spanish, statistics, and visual arts.

The College offers academic programs leading to the Ph.D. in biology, chemistry, computer science, economics, geology, history, international relations, physics, political science, psychology, comparative sociology and Spanish.

Graduate Admission Requirements

The following requirements are in addition to the University's Graduate Admission Requirements. These are minimal requirements. Please consult the specific graduate program, which may have higher requirements.

1. A 3.0 or higher GPA during the last two years as an upper division student or a minimum total score (quantitative plus verbal) of 1,000 on the GRE for the Master's degree. A 3.0 or higher GPA or a GRE verbal and quantitative of 1100 or higher are required for the Ph.D. degree. Foreign students whose native language is not English must take the Test of English as a Foreign Language (the TOEFL

examination) and obtain a 500 score or higher.

2. The GRE or GPA stated above are only minimum requirements. All applications are reviewed by the Graduate Studies Admission Committee, which makes the final admissions decisions. Since admission to the program is competitive, the committee's requirements are normally higher than the minimum aforementioned standards.

Note: The programs, policies, requirements, and regulations listed 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 may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

African-New World Studies

Core ANWS Graduate Faculty

- Jean Rahier**, *Associate Professor, Sociology/Anthropology and African-New World Studies, Director of the African-New World Studies Graduate Program*
- Kingsley Banya**, *Professor, College of Education*
- Pascale Bece**, *Associate Professor, Modern Languages*
- Elizabeth Bergmann**, *Professor, Theatre and Dance*
- Ken Boodhoo**, *Associate Professor, International Relations*
- Carole Boyce Davies**, *Professor, English and African-New World Studies*
- Jean-Robert Cadely**, *Assistant Professor, Modern Languages and African-New World Studies*
- Isabel Castellanos**, *Professor, Modern Languages*
- John Clark**, *Associate Professor, International Relations*
- Mohamed Farouk**, *Associate Professor, College of Education*
- Steve Fjellman**, *Professor, Sociology/Anthropology*
- Ivelaw L. Griffith**, *Professor, Political Science*
- Tometro Hopkins**, *Associate Professor, English*
- Alexander Lichtenstein**, *Associate Professor, History*
- Marcia Magnus**, *Associate Professor, Dietetics and Nutrition*
- Anthony Maingot**, *Professor, Sociology/Anthropology*
- Andrea Mantell-Seidel**, *Associate Professor, Theatre and Dance*
- Roderick Paul Neumann**, *Associate Professor, International Relations*
- Akin Ogundiran**, *Assistant Professor, History*
- Valerie Patterson**, *Instructor, College of Health and Urban Affairs*
- Terry Rey**, *Assistant Professor, Religious Studies*
- Linda Spears-Bunton**, *Associate Professor, College of Education*
- Alex Stepick III**, *Professor, Sociology/Anthropology*
- Linda Strong-Leek**, *Assistant Professor, English*
- James Sweet**, *Assistant Professor, History, African New World Studies*
- Clarence Taylor**, *Professor, History and African-New World Studies*
- Juan Torres-Pou**, *Assistant Professor, Modern Languages*
- S. Lee Woods**, *Professor, College of*

Education

Other faculty not identified above will be considered CORE ANWS Faculty based on research, identified interest and publications. Students can take courses for credit from other ANWS Affiliated Faculty after approval of syllabus by graduate director.

Master of Arts in African-New World Studies

The Master of Arts in African-New World Studies provides interdisciplinary, graduate level training with three areas of emphasis: 1. Pedagogy of the African Diaspora, 2. National and transnational policy analysis, and 3. Cultural studies. This Master of Arts develops scholars with specific skills, research methodologies, principles, and knowledge which will lead to professional positions in a range of fields as it simultaneously prepares them for further study at the doctoral level. The Master of Arts in African-New World Studies is international in orientation, as such, its geographic reach is Africa, the Caribbean, North and South America, Europe and Asia. Therefore, conceptually, it embraces the African Diaspora. FIU provides one of the few truly international, multi-disciplinary M.A. models among African Studies programs, departments and centers nationally. As such, the M.A. in African-New World Studies is organized to develop research interests and models, advance knowledge, and develop interactive and comparative relationships with similar programs which pursue the life, cultural and social formations, economics, education, language, expressive and performing arts, governmental and other institutional systems, of people of African descent wherever they exist. The M.A. in African-New World Studies provides students with some specific skills, knowledge and resources to:

1. Work in specific programs and units related to African communities in Africa, Latin America, the Caribbean, the United States, Europe, Asia, international organizations, multi-cultural curriculum development and teaching and other educational contexts; race and social and public policy; journalism and other diverse fields.
2. Prepare students to use and develop theoretical, analytical, and methodological approaches to critical issues such as those

pertaining to race and ethnicity in all their manifestations; development and under-development; technology; relations of domination and power; environmental policies, health and wellness; issues of self-determination and mutual cooperation, and all aspects of aesthetic/creative expression.

3. Create new knowledge through research and close study of relevant communities and disseminate this knowledge to the various communities we serve.
4. Understand and confront the unique socioeconomic problems facing communities of Africa and the African Diaspora; Incorporate into an intellectual and research agenda theoretical and analytical frameworks that focus on a) "Resistance and Struggle," b) "Nationalities and National/Post National Identities," c) "Migration and Identity/Geographical Positioning," d) "History, Culture, Performative and Expressive Modes," and e) "Schooling, Pedagogical Exigencies, Instructional Practices, and Educational Policies."

Admission Requirements

Each applicant to the African New-World Graduate Program must complete a graduate application form and arrange to send transcripts of all prior college (undergraduate and graduate) work and official reports of the Graduate Record Exam (GRE) and TOEFL (if applicable) to the FIU's Office of Admissions. Each applicant should also send a separate letter of application to the Director of the African-New World Graduate Program, along with copies of the above material. The letter of application should include a statement expressing the applicant's academic and professional objectives and the choice of the applicant for enrolling in either one of the three areas of specialization. Applicant's are strongly encouraged to include examples of academic or other relevant professional work that may support their application. Applicants must request two letters of recommendation from professors able to comment on their academic ability. The letters of recommendation should be sent directly to the Director of the African-New World Graduate Program.

The application file must be complete before the African-New World Studies Graduate Committee

will consider the applicant for admission. The deadline for receipt of application—including all supporting materials and letters of recommendation is March 15th. To be admitted into the African-New World Studies Graduate Program a student must meet the University's graduate admission requirements which can be found in Florida International University's Graduate Catalog and the following minimum standards.

- A. Applicants must have a baccalaureate degree from an accredited college or university.
- B. Applicants must have an undergraduate grade point average (GPA) of 3.0 or higher and a combined score of 1000 or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE). Applicants must submit both grade transcripts and GRE scores for consideration. The student must also have a GPA of 3.5 on any previous graduate work.
- C. Applicants should request that two letters of recommendation from individuals able to judge a student's academic potential be sent directly to the Director of the African-New World Studies Graduate Program: African-New World Studies, Florida International University, Academic One-162, 3000 North East 151st Street, North Miami, Florida 33181.
- D. Applicants are encouraged to submit examples of written work and other supporting materials.
- E. Applicants whose native language is not English must take the TOFEL (Test of English as a Foreign Language) and obtain a score of 550 or higher.

Financial Aid

Each academic year a limited number of graduate students are hired as teaching assistants. Teaching assistantships are allocated on a competitive basis and typically pay a substantial portion of tuition expenses and provide a stipend. To be considered for an assistantship the applicant must make such a request in writing to the Graduate Program Director. The awarding of teaching assistantships will be made by the Graduate Program Committee. Students receiving an assistantship are required to perform approximately 20 hours of teaching related duties per week and are required to participate in a one hour seminar related to teaching.

Graduation Requirements

Candidates must obtain a grade of B or higher in all courses and achieve a cumulative average of at least 3.0 (based on a 4.0 scale) and present a satisfactory internship (with research paper) or community project (with research paper) or thesis. A Thesis committee or an Internship/Community Project committee composed of at least two FIU faculty will guide the student through successful completion of the thesis or internship (with research paper) or community project (with research paper).

The FIU faculty eligible to serve in a Thesis, Internship or Community Project committee are the faculty members whose names appear in the list of "African-New World Studies Core M.A. Faculty" presented above. Other faculty not identified in that list will be considered "Core Faculty" based on research, identified interest, and publications (see the Graduate Director).

Before the end of a student's first year in the program, he/she should form a thesis or internship or community project committee. This committee will consist of a Committee Chairperson and two additional committee members. The Committee Chairperson and one other committee member must be "Core Faculty" of the African-New world Studies Program. The remaining committee member will generally be a faculty member at FIU, although with the approval of the Committee Chairperson and the Graduate Program Director, the third member may come from outside the ANWS Program ("Core Faculty") or University.

Internships and community projects, as well as thesis research are usually performed during the first summer of enrollment in the program. Internships and Community Projects are options available only to students who specialize either in Pedagogy of the African Diaspora or in National and Transnational Policy Analysis. Students enrolled in the specialization in Cultural Studies must write a thesis. Internships and community projects are ALWAYS accompanied by a research paper.

The thesis will be between 70 and 100 pages. This research paper linked to an internship or a community project generally will be between 25 and 50 pages. The student may use original data if she or he and the Committee Chairperson consider it appropriate.

However, a thesis or research paper may be based on secondary sources or on library research. In any case it will be based on scholarly sources defined by particular disciplines. While thesis and research papers need not be based on original data collected by the student, they must be rigorous and original. By rigorous, we mean that the thesis/research paper must be tightly argued and logical, well written and well organized. By original, we mean that the thesis cannot simply summarize the arguments or work of others. It must have the student's unique interpretation, which should be cogent—given the data under consideration.

Required Credits for all Specializations

Three (3) credits [core course], six (6) credits of thesis/research project or community project or internship and twenty-seven (27) credits selected according to one's specialization. (See below for specifics for specialization requirements).

Total: 36 credit hours.

Core Course (For all specializations)

AFA 5002	African-New World Studies: Theory and Methods Graduate Seminar
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(offered every Fall semester)

Language Requirement (For all specializations)

Students will be asked to demonstrate proficiency in a language according to the nature of their internship or thesis/research project or community project, and professional interests. Credit hours earned in meeting language requirement will not count towards the 36 credit hours required for the degree.

Specializations

I. Pedagogy of the African Diaspora

(Liaison – Linda Spears-Bunton, College of Education)

This specialization addresses the need for multi-cultural education with a specific emphasis on training personnel to be knowledgeable about Africa Diaspora materials. The national and international rise of multi-cultural studies and interests in the area of education makes this program marketable to a range of educational interests. Targeted as well to meet the needs of teacher training in light of the

Florida State Legislation (233.061) which mandates the teaching of African American history across the curriculum, our students will be prepared to play leadership roles in the development of an international consciousness—of educational contexts, facilities, curricula, inside and outside of the United States. This specialization will help students teach and develop instructional materials in the area of urban education as well as for other students of different ethnicities; facilitate transmission of pedagogical materials on the African Diaspora; and develop cross and intra-cultural methodologies. Students must display cultural and linguistic fluency. Students in this specialization may participate in an Internship with an appropriate institution/organization that will culminate in a Research Project for 6 credit hours.

Required Courses (6 credit hours)

- AFA 5107 Teachers' Institute
- AFA 6325 Pedagogy of the African Diaspora: Literacy, Culture, Race & Gender Issues

Students must take three courses (9 credit hours) from the list below:

- EDF 5820 Latin American Education
- EDF 5821 African Educational Systems: A Comparative Approach
- EDF 5881 Foundations of Bilingual Education
- LAE 5465 Adolescent Literature
- LAE 5466 Multicultural Perspectives in Language & Literature
- LAE 6925 Special Topics in English/Education
- LIN 5603 Language Planning: Linguistic Minority Issues
- SSE 6394 Social Studies in Other Nations
- SSE 6925 Workshop in Social Studies Education

From the list below, students must take four courses (12 credit hours). Students may take no more than one course in one given discipline.

- AFH 5905 Readings in African History
- AFH 5935 Topics in African History
- ANT 6319 The African Diaspora: Anthropological Perspectives
- INR 5086 Islam in International Relations

- SYD 6705 Race and Ethnicity
- LIT 6934 Black Literature & Cultural Theory
- SPN 5536 Afro-Cuban Culture
- SPW 6775 Literature of the Spanish Caribbean
- LIN 5934 Pidgins and Creoles
- AFA 6xxx The Cultural Body of the Americas: Critical Issues in Intercultural Understanding
- AFA 6xxx Expressive Art and Culture of the African Diaspora
- AFA 5xxx Latin American and Caribbean Dance and Culture
- HAI 5xxx Haiti, Language and Culture
- HIS 6xxx History of the African Diaspora
- REL 5xxx African Spirituality
- REL 5xxx Rasta, Voodoo, Santeria
- HIS 5xxx African-American History
- LIT 5487 Major African-American Writers
- LIT 6xxx African Diaspora Women Writers
- ANT 5xxx Representation of Africa in Films
- ANT 5xxx Cultures of the Caribbean
- HIS 6xxx Caribbean Intellectual History

II. National and Transnational Policy Analysis
(Liaison – Valerie Patterson, College of Health and Urban Affairs)

Courses will focus on the examination and analysis of national and transnational policies relevant to African people in Black urban and rural communities, national and international contexts. Emphasis will be placed on a) training Black leadership for governmental and non-governmental agencies; b) the development of economic policies, competencies, structures, and strategies for economic development; c) the examination of environmental issues, health policies, wellness and a variety of community practices; and d) the evaluation of current policies that affect Black communities internationally. Students in this specialization may participate in an Internship with an appropriate institution/organization that will culminate in a Research Project for 6 credit hours.

Required Courses (6 credit hours)

- SYA 6305 Research Methods I and a New Course—Transnational Policy Analysis:

- Africa and the Diaspora
- Internship and Research Project (6 credit hours)**
- Recommended**
- A. Students with a Public Policy Orientation (offered every year—economics background).
- PAD 6053 Political, Social & Economic Context of Public Administration
- URS 6028 Policy Analysis & Program Planning
- B. Students with a Business Orientation (we recommend the parallel International Business Certificate)
- Students must take four courses (12 credit hours) from the list below:
- CPO 5325 Politics of the Caribbean
- CPO 6206 Seminar in African Politics
- INR 5087 Ethnicity and the Politics of Development
- INR 5255 Seminar in African Development
- INR 5607 International Relations and Development
- INR 6056 Environment and Development
- INR 6089 International Relations and Human Rights
- SYD 6705 Comparative Analysis of Ethnicity and Race
- SYD 6236 International Migration and Refugees
- SYP 5447 Sociology of International Development
- SYP 6306 Comparative Social Movements
- Students must take two courses (6 credit hours) from the list below:
- AFH 5905 Readings in African History
- AFH 5935 Topics in African History
- AFH 6915 Research in African History
- ANT 6319 The African Diaspora: Anthropological Perspectives
- INR 5086 Islam in International Relations
- LAH 6915 Research in Latin American History
- LIT 5487 Black Literature & Cultural Theory
- SPN 5536 Afro-Cuban Culture
- SPW 6775 Literature of the Spanish Caribbean
- SYD 6705 Race and Ethnicity

III. Cultural Studies

(Liaison – Jean Rahier, Department of Sociology/Anthropology, African-New World Studies)

Students working in this area will be exposed to the study, research, practice and performance, and analysis of cultural formations in the African Diaspora. Interdisciplinary in structure, fields such as dance, music literature, art, cinema studies, language, science, and other related areas will be studied. Students will critically analyze issues of a) colonialism, global imperialism, and capitalism and their effects on Africans and peoples of African descent internationally, and b) strategies, traditions and methods of resistance to the same. Courses will involve comparative studies of African communities in Africa, the United States, the Caribbean, Latin America, and Europe, and other areas of the African Diaspora will be examined; critical reading of cultural manifestations, identities, and practices; analysis of dynamics between traditions and social transformations.

Required Courses (6 credit hours)

ANT 6319	The African Diaspora: Anthropological Perspectives
LIT 5487	Black Literature and Cultural Theory

Students must take four courses (12 credit hours) from the list below:

SPN 5536	Afro-Cuban Culture
SPN 5537	Special Topics in Afro-Hispanic Culture
LIN 5934	Pidgins and Creoles
EDG 5707	Cultural and Cross-cultural Studies
SYD 6705	Race and Ethnicity
AFA 6xxx	The Cultural Body of the Americas: Critical Issues in Intercultural Understanding
AFA 6xxx	Expressive Art and Culture of the African Diaspora
AFA 5xxx	Latin American and Caribbean Dance and Culture
HAI 5xxx	Haiti, Language and Culture
HIS 6xxx	History of the African Diaspora
LIT 6xxx	African Diaspora Women Writers
ANT 5xxx	Cultures of the Caribbean
HIS 6xxx	Caribbean Intellectual History

From the list below, students must take three courses (9 credit hours). Students

may take no more than one course in one given discipline, including one course taken from the list above that the student has not already taken.

AFH 5905	Readings in African History
HIS 5xxx	African-American History
LIT 5487	Major African-American Writers
REL 5xxx	African Spirituality
REL 5384	Rasta, Voodoo, Santeria
ANT 5xxx	Representation of Africa in Films

Course Descriptions

Definition of Prefixes

AFA-African-New World Studies

AFA 5002 African-New World Studies: Theory and Methods (3). A study of the major ideas, thinkers, theories, and communities of African Diaspora scholarship. Research methodology in African Diaspora Studies. Prerequisites: Graduate standing or ANWS Certificate.

AFA 5107 Teaching the African-American Experience. (3). Teachers Institute on Literature, culture, history, politics designed to meet Florida State Teachers Certification requirements. Includes instruction on pedagogy, practical teaching methods, and FCAT.

AFA 6920 African-New World Studies Graduate Colloquium (1). Colloquiums presented by faculty, visiting scholars, and graduate students on topics of current research interest. May be repeated with departmental approval. Prerequisites: Graduate standing, graduate advisor approval.

AFA 6940 Community Project/Internship Research in African-New World Studies (1-6). Qualitative and quantitative research using a variety of sources. Research projects conducted in the field by students under faculty supervision. May be repeated with departmental approval. Prerequisites: Graduate standing, graduate advisor approval.

AFA 6971 Thesis Research in African-New World Studies (1-6). Quantitative and qualitative research using a variety of sources, e.g. primary and secondary documents, filed research under faculty supervision. May be repeated with departmental approval. Prerequisites: Graduate standing, graduate advisor approval.

Biological Sciences

John Makemson, *Professor and Chairperson*

James Allen, *Assistant Professor*
Victor Apanius, *Assistant Professor*

Brad Bennett, *Associate Professor*
Charles Bigger, *Associate Professor*

Christopher Brown, *Professor,*
Associate Chairperson and Marine Biology Program Director

Richard Campbell, *Research Scientist*

Chun-fan Chen, *Associate Professor*

Dan Childers, *Associate Professor*

Tim Collins, *Assistant Professor*

Keith Condon, *Lecturer*

Leon A. Cuervo, *Professor*

Maureen Donnelly, *Associate Professor*

Kelsey Downum, *Professor and Associate Dean for Research*

James Fourqurean, *Associate Professor*

Javier Francisco-Ortega, *Assistant Professor*

Evelyn Gaiser, *Assistant Professor*

Robert M. George, *Lecturer*

Walter M. Goldberg, *Professor and Associate Chairperson*

Jack B. Fisher, *Research Scientist*
Rene J. Herrera, *Associate Professor*

Frank Jochem, *Assistant Professor*

Ronald D. Jones, *Professor and Director, Southeastern*

Environmental Research Center

Christopher Kernan, *Research Scientist*

Suzanne Koptur, *Professor*

Lidia Kos, *Assistant Professor*

David N. Kuhn, *Associate Professor*

David W. Lee, *Professor*

Kalai Mathee, *Assistant Professor*

Steven F. Oberbauer, *Professor*

Case K. Okubo, *Associate Professor and Undergraduate Program Director*

Tom Philippi, *Assistant Professor*

Thomas R. Pitzer, *Instructor and Teaching Assistant Coordinator*

Thomas E. Pliske, *Lecturer*

Jennifer Richards, *Professor*

Laurie L. Richardson, *Associate Professor*

Barbra A. Roller, *Lecturer*

Philip Stoddard, *Associate Professor*

Martin L. Tracey, *Professor*

Joel Trexler, *Associate Professor and Graduate Program Director*

Ophelia I. Weeks, *Associate Professor*

Scott Zona, *Research Scientist*

Master of Science in Biology

To be admitted into the Master's degree program in Biology, a student must:

1. Hold a Bachelor's degree in a relevant discipline from an accredited college or university.

2. Have a 3.0 average or higher during the last two years of the undergraduate program or a combined score (verbal and quantitative) of 1000 or higher on the Graduate Record Exam.

3. Two letters of recommendation of the student's academic potential.

4. Be accepted by a faculty sponsor.

5. Receive approval from the Departmental Graduate Committee.

6. Foreign students whose native language is not English must take the TOEFL (Test of English as a Foreign Language) and obtain a score of 550 or higher.

Degree Requirements

The Master of Science in Biology consists of a minimum 36 credits, including a thesis based upon the student's original research. A maximum of six credits of post-baccalaureate course work may be transferred from other institutions, subject to the approval of the Graduate Committee.

Required Courses

BSC 6457	Introduction to Biological Research	3
BSC 5931	Thesis Proposal Seminar	1
BSC 5975	Thesis Defense Seminar	1
	Workshops and Laboratories ¹	4
BSC 6971	Master's Thesis ²	6
	Electives ³	21

Foreign language competency⁴

¹ Following graduate committee approval, students may fulfill this requirement with any combination of graduate workshops, graduate laboratories, and graduate techniques courses (minimum of three separate courses).

² To be taken after qualifying exam is passed.

³ These must include at least 16 credits of courses in the Department of Biological Sciences. No more than six credits can be transferred from another graduate program, subject to the approval of the Graduate Committee. At least six credits must be at the 5000- or 6000-level (excluding thesis credits). Credits taken at the 4000-level beyond six, or at a lower levels, will not count towards graduation.

⁴ Competency will be determined by examination consisting of a clear translation of technical material in a foreign language. Credits taken to gain such proficiency will not count toward

graduation. As an alternative, students may substitute either six credits of computer programming or mathematics beyond Calculus II.

Graduation Requirements

A grade of 'C' or higher must be obtained in all courses with a cumulative average of 3.0 or higher in the 36 credits, and a thesis must be completed and accepted after presentation to an ad hoc Thesis Committee chosen by the student's Major professor.

Doctor of Philosophy in Biology

To be admitted into the Ph.D program in Biology, a student must:

1. Hold a Bachelor's degree in a relevant discipline from an accredited college or university;

2. Have a 3.0 grade point average during the last two years of the undergraduate program or a Master's degree in a relevant discipline;

3. Have a combined score (verbal and quantitative) of 1,000 on the general Graduate Record Exam (GRE)

4. Be sponsored by a Biology faculty member

5. Arrange to have three letters of recommendation sent to the Biology Graduate Program Director evaluating the applicant's potential for graduate work

6. Receive approval from the Departmental Graduate Committee.

7. Foreign students whose native language is not English must take the TOEFL (Test of English as a Foreign Language) and obtain a score of 550 or higher.

Degree Requirements

The Ph.D in Biology is conferred on individuals in recognition of their demonstrated ability to master a specific field of knowledge and to conduct significant independent, original research. A minimum of 90 semester credits of graduate work beyond the baccalaureate are required, including a dissertation based upon the student's original research. A maximum of 36 credits may be transferred from another graduate program with the approval of the Advisory Committee.

Required Courses

BSC 7981	Dissertation Proposal Seminar	1
BSC 7982	Dissertation Defense Seminar	1
BSC 5945	Supervised Teaching in Biology	2

Workshops and Laboratories ¹	4
BSC 7980 Ph.D. Dissertation	24
Electives ²	8
Foreign Language Competency ³	

Recommended course

BSC 6457 Intro to Biological Research	3
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¹Following graduate committee approval, students may fulfill this requirement with any combination of graduate workshops, graduate laboratories, and graduate courses (minimum of three separate courses).

²No more than 36 credits may be transferred from another graduate program, subject to the approval of the Graduate Committee.

³Competency will be determined by examination consisting of a clear translation of technical material in a foreign language. Credits taken to gain such proficiency will not count toward graduation. As an alternative, students may substitute either six credits of computer programming or mathematics beyond Calculus II.

Graduation Requirements

A grade of 'C' or higher must be obtained in all courses with a cumulative average of 3.0 or higher in the 90 credits; demonstration of foreign language competency, and a dissertation completed and accepted by the University.

Course Descriptions

Note: Laboratories should be taken concurrently with or subsequent to lectures. Students should register for each separately.

Definition of Prefixes

APB - Applied Biology; BCH - Biochemistry; BOT - Botany; BSC - Introductory Biology; MCB - Microbiology; OCB - Oceanography (Biological); PCB - Process Cell Biology; ZOO - Zoology.

BCH 5134C Workshop in Chromatography Techniques (1). Workshop covers the theory and practice of chromatographic techniques to separate complex mixtures of biomolecules, including absorption, ion exchange, size exclusion and affinity chromatography. Prerequisite: Graduate status.

BCH 5411C Techniques in Molecular Evolution Research (5). Ribosomal genes from related organisms are amplified by polymerase chain reaction (PCR) and sequenced. Phylogenetic maps are made by computer from sequence data. Students may use material from their own re-

search. Prerequisites: General Biochemistry BCH 3033 and Lab BCH 3033L, Molecular Biology PCB 4524 and Lab PCB 4524L or Graduate status.

BCH 6130C Workshop in DNA Synthesis and Amplification (1). Workshop in the chemical synthesis of DNA and the amplification of specific genes by the polymerase chain reaction (PCR). Students may synthesize DNA oligonucleotides for use in their own research. Prerequisite: Graduate status and Permission of the instructor.

BCH 6131C Workshop in Radioisotope Use and Safety (1). Workshop in the safe use of radioisotopes in biological and biochemical experimentation, labelling of biochemical compounds, purification of labelled compounds, and instrumentation involved in detection of radioisotopes. Prerequisite: Graduate status and Permission of the instructor.

BCH 6132C Workshop in Electrophoresis (1). Workshop in the application of electrophoresis to biochemical and genetic experimentation. Students may use material from their own research in the laboratory section. Prerequisite: Graduate status and Permission of the instructor.

BCH 6133C Workshop in DNA Sequencing (1). Workshop in the manual and automated sequencing of DNA. Students may sequence DNA from their own research. Prerequisite: Graduate status and Permission of the instructor.

BCH 6507C Workshop in Radiometry and Spectrophotometry (1). Interaction of light with matter (absorption, fluorescence, light scattering) and emission (chemi- and bioluminescence); analysis of spectra and enzyme kinetics. Prerequisite: Graduate status.

BOT 5159C Florida Plant Communities (3). Two-week field trip to many diverse plant communities of the state. Ecological and environmental factors influencing plant distribution will be examined, contrasting vegetation among sites. Prerequisites: Ecology PCB 3043 or Permission of the instructor

BOT 5406 Algal Physiology (3). Physiology and metabolism of eukaryotic algae, including ecological aspects of the aquatic environment and algal roles in aquatic biogeochemical cycling. Prerequisites: Phycology BOT

4404 and one year of chemistry or instructor consent.

BOT 5515 Biochemistry of Plant Natural Products (3). Aspects of primary and secondary plant metabolism will be covered including biosynthesis and degradation of natural products as well as their biological/pharmacological activity. Prerequisite: Organic Chemistry II CHM 2211 or General Biochemistry BCH 3033.

BOT 5575 Photobiology (3) BOT 5575L Photobiology Lab (1). The study of basic photochemical mechanisms as they occur in molecular biological processes such as photosynthesis, plant growth, animal vision, bioluminescence, and radiation damage. Prerequisite: Permission of the instructor.

BOT 5602 The Functional Ecology of Tropical Plants (3) BOT 5602L The Functional Ecology of Tropical Plants Lab (1). The relationship of climate and soils to the distribution and function of the major plant groups of the tropical regions. Prerequisites: Two courses in botany or Permission of the instructor.

BOT 5605 Plant Ecology (3) BOT 5605L Plant Ecology Laboratory (1). In-depth study of plant ecology at three levels: individual, population, and community. Laboratory and field exercises will examine lecture topics. Prerequisites: Ecology PCB 3043 or Permission of the instructor. Corequisite: Concurrent registration of lecture in lab course.

BOT 5647 Ecology of Marine Vascular Plants (3). Biology and ecology of seagrasses and mangroves, with an emphasis on South Florida and Caribbean species. Physiological ecology, population and community ecology, and ecosystem processes. Prerequisite: Permission of the instructor.

BOT 5648 Workshop on Aquatic Plants (1). Biology and identification of aquatic plants. Prerequisites: Graduate status or Permission of the instructor.

BOT 5682C Florida Plant Communities (3). Two-week field trip to many diverse plant communities of the state. Ecological and environmental factors influencing plant distribution will be examined, contrasting vegetation among sites. Prerequisites: Ecology PCB 3043 or Permission of the instructor.

BOT 5727 Plant Genetics (3). Topics related to higher plants, including polyploid inheritance, self-incompatibility, cytoplasmic inheritance, mutable alleles, complex loci, genome analysis, recombination and mutagenesis. Prerequisites: General Biology I (BSC 1010) and General Biology II (BSC 1011) and Genetics (PCB3063).

BOT 5728 Plant Molecular Systematics (2). DNA markers for phylogenetic analysis of vascular plants, including description of laboratory methods, computerized analytical techniques and evolutionary interpretation. Prerequisites: Graduate status or permission of instructor.

BOT 5816 Ethnobotany (3). Review the use and management of plants by indigenous people. Discuss emerging theories in ethnobotany, examine the role of ethnobotany in conservation and resource utilization. Prerequisites: Economic Botany BOT 3810, Tropical Botany BOT 3663, or Cultural Ecology ANT 3403, or Permission of the instructor.

BOT 5816L Ethnobotany Workshop (1). Field methods in the study of plant use by traditional and modern societies. Examines botanical documentation, ethnological description and experimental design. Prerequisite: Permission of the instructor.

BOT 5924 Workshop in Tropical Plant Families (3). An introduction to important spermatophyte families, including systematics, ecology, and conservation. Includes laboratory and field experience. Prerequisite: Permission of the instructor.

BOT 5925 Workshop in the Biology of Southern Florida's Native Trees (3). Distribution, floristic relationships, morphology, reproductive biology, taxonomy, and conservation of trees native to southern Florida. Prerequisites: Local Flora BOT 3153, Tropical Botany BOT 3663, or permission of the instructor.

BOT 5928 Workshop on Grasses and Sedges of Southern Florida (1). The systematics, ecology, and identification of South Florida grasses and sedges. Prerequisite: Graduate status or permission of the instructor.

BOT 5XXX Plant Systematics (3). Theory and methods of classification of vascular plants using phylogenetic principles. Covers the integration of morphological and molecular

characters. Prerequisites: Graduate students or permission of instructor.

BOT 5XXX Plant Molecular Systematics Laboratory (2). DNA markers for phylogenetic analysis of vascular plants, including description of laboratory methods, computerized analytical techniques and evolutionary interpretation. Prerequisites: Graduate status or permission of instructor.

BOT 5XXX Workshop: Seed Conservation (1). Covers practical issues of seed conservation of tropical plants: longevity curves, seed germination protocols and seed conservation procedures. Prerequisites: Graduate students or permission of instructor.

BOT 6275 Plant Breeding Systems (3). Ecology, evolution, genetics and development of plant breeding systems. Prerequisite: Permission of the instructor.

BOT 6585C Plant Structure and Function (4). A quantitative assessment of plant architecture, morphology and anatomy in relationship to physiology, including the measurement of water relations, energy and gas exchange. Prerequisites: Permission of the instructor and graduate status.

BOT 6645 Workshop in Field and Laboratory Techniques for Seagrass Ecology (1). Field and laboratory methods used in the study of seagrass communities. The course emphasizes ecological and physiological measurement methods. Prerequisite: Permission of the instructor.

BOT 6724 Readings in Pollination Biology (1). Current literature on pollination, including natural history, theory, experimental studies, and reviews. Prerequisite: Graduate status or permission of the instructor.

BOT 6901 Readings in Plant Mating Systems (1). Current literature on theory, biology, and evolution of plant mating systems. Prerequisites: Graduate standing or Permission of the instructor.

BOT 6920 Workshop in Field Techniques in Natural History of Insect/Plant Interactions (1). A workshop in the techniques for collecting and preserving plants and insects for biological and taxonomic research.

BOT 6921 Workshop in Field Techniques in Pollination Biology (1). Techniques to do a thorough study

of the pollination biology of any flowering plant; basic methods and simple instruments for field observations, measurements and manipulations. Prerequisite: Graduate status.

BOT 6922 Workshop: Video Image Analysis in Biology (1). Workshop in the use of video image analysis in biological research. Prerequisites: Graduate status and Permission of the instructor.

BOT 6923 Workshop: Techniques in Plant Reproductive Biology (1). Workshop in techniques for research on pollination and fertilization in plants. Histological and microscopic examination emphasized. Prerequisites: Graduate status and Permission of the instructor.

BOT 6926C Workshop in Plant Nutrient Analysis (1). Field and laboratory methods used in the assessment of nutrient availability for primary producers. Prerequisite: Permission of the instructor.

BOT 6928 Workshop on Plant Gas Exchange and Fluorescence (1). Field and laboratory methods used for measurement of plant photosynthetic production and transpiration. Prerequisite: Permission of the instructor.

BOT 6935 Advanced Topics in Botany (3). An intensive study of particular plant topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate status.

BOT 6936 Readings in Plant/Animal Interactions (1). Current literature on coevolution of plants and animals, theory, experimental studies, and reviews. Prerequisite: Graduate standing or permission of the instructor.

BSC 5215 Introduction to the Mechanics of Biological Systems (3). Mechanical principles are used to analyze the structure and function of plants and animals; especially the statics of bone systems, and support structures of plants. Prerequisite: Permission of the instructor.

BSC 5302 Ecosystems of the Past (3). Analysis of local to global change in environments through time using faunal distributions, biodiversity, biogeography, physical and chemical properties of sediments, and stable isotopes. Prerequisite: Permission of the instructor.

BSC 5345 Techniques in Scientific Diving (4). Planning and conducting safe scientific diving operations and research. Prerequisite: Civilian Diving Certificate (NAUI/PADI) or equivalent.

BSC 5405C Environmental Instrumentation (3). Theory and techniques for measurement of environmental parameters of interest to field biologist. Prerequisite: Permission of the instructor.

BSC 5406 Forensic Biology (3). Forensic applications of molecular biology including PCR, STR techniques and other laboratory methods and data interpretation. Prerequisite: Graduate status.

BSC 5409C Biology Laboratory Instrumentation for Secondary Teachers I (3). Principles and practice of selected instrumental techniques. Spectrophotometry, electrical measurements and separatory techniques. Not for BSC majors. Prerequisites: Three undergraduate credits in physics, three in chemistry, and six in biology.

BSC 5416C Workshop in Cell Culture Methods and Applications (1). Utilization of primary and established cells to study growth cell cycle, chromosomes, cell differentiation. Special applications to basic problems in cell molecular biology. Prerequisites: Permission of the instructor and graduate status.

BSC 5606 Biological Systematics (3). Systems of nomenclature and contemporary topics in classification, including molecular evidence, numerical methods and cladistics. Prerequisite: Permission of the instructor.

BSC 5926 Graduate Bioresource Workshop (1). This workshop is designed to introduce Biology graduate students to the various resources available for graduate teaching and research. Prerequisite: Graduate status.

BSC 5928 Workshop: Vertebrate Animal Research (1). Reviews the ethical, legal and practical guidelines for conducting research with live vertebrate animals. Required for students capturing, handling or collecting vertebrate animals in the course of research or teaching. Prerequisite: Graduate status or permission of the instructor.

BSC 5931 Thesis Proposal Seminar (1). Presentation of thesis proposal seminar. Permission of major professor required.

BSC 5933 Current Topics in Tropical Biology (3). An intensive study of particular tropical biology topics not otherwise offered in the curriculum. Prerequisite: Permission of the instructor.

BSC 5935, 6936 Topics in Biology (1-3). 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 status.

BSC 5936 Glaser Seminar: The Biology of Tomorrow (1). A series of lectures by an invited, internationally recognized authority in biological topics of current and future concern.

BSC 5945 Supervised Teaching in Biology (1-2). Teaching in a biological discipline, under the supervision of departmental faculty. Prerequisite: Graduate status.

BSC 5975 Thesis Defense Seminar (1). Presentation of thesis defense seminar. Permission of major professor required. Prerequisite: Thesis proposal seminar.

BSC 6415 Animal Cells in Culture (3) BSC 6415L Animal Cells in Culture Lab (2). Biology of animal cells cultured in semi-synthetic media: cell nutrition growth, cell cycle analysis, cellular transformation and differentiation, heterokaryons and somatic cell genetics. Prerequisite: Permission of the instructor.

BSC 6456C Microcomputer Use in Biology (1). Introduction to microcomputer operating environments, the utility of microcomputers in biology, and computer interfacing to biological instrumentation. Prerequisite: Permission of the instructor.

BSC 6457 Introduction to Biological Research (3). Analysis of existing biological data and experimental design. Prerequisite: Graduate status.

BSC 6926 Workshop in Biology (1-2). A short intensive treatment of a specialized research topic or technique. Prerequisite: Permission of the instructor.

BSC 6948 Laboratory Visitation (1-2). Student visits to three laboratories to learn techniques and concepts applicable to M.S. or Ph.D. research. Prerequisite: Permission of the instructor.

BSC 6971 Master's Thesis (1-12). Completion of thesis. Prerequisite: Permission of Major professor.

BSC 7980 Ph.D. Dissertation (1-12). Completion of dissertation. Prerequisite: Permission of Major professor.

BSC 7981 Dissertation Proposal Seminar (1). Presentation of doctoral dissertation proposal seminar. Permission of major professor required.

BSC 7982 Dissertation Defense Seminar (1). Presentation of doctoral dissertation defense seminar. Permission of major professor required. Prerequisite: Dissertation Proposal Seminar.

MCB 5114 Microbial Diversity (3) MCB 5114L Microbial Diversity Laboratory (1). Analysis of metabolic and morphological diversity in bacteria in the context of bacterial systematics. Prerequisites: General Microbiology MCB 3010 and Lab MCB 3010L and an additional course in microbiology or biochemistry. Corequisite: Concurrent registration of both lecture and lab courses.

MCB 5315C Workshop: Prokaryotic Cloning (2). Description of molecular genetic methods for manipulation of prokaryotic DNA. Prerequisites: Genetics PCB 3513 and Biochemistry BCH 3033 or permission of instructor.

MCB 5405 Biology of Photosynthetic Bacteria (3) MCB 5405L Biology of Photosynthetic Bacteria Lab (1). Study of the physiology and ecology of photosynthetic bacteria, including Blue-green algae (cyanobacteria), purple and green bacteria, and Halobacteria.

MCB 5453L Workshop: Prokaryotic Cell Signaling (1). Covers chemical signals used by prokaryotes for cell-to-cell communications. Prerequisites: General Microbiology MCB 3010 or permission of instructor.

MCB 5505 Virology (3) MCB 5505L Virology Lab (1). Principles and methods of study of bacterial, plant, and animal viruses. Molecular aspects of viral development, virus pathogens, and carcinogens. Prerequisites: General Biochemistry PCB 3033, Genetics PCB 3063, and Organic Chemistry I CHM 2210.

MCB 6418 Bacterial Mineral Cycling (3). Energy and metabolic processes; detrital food chains; carbon, nitrogen, sulfur and trace mineral cycling; chemolithotrophy; global element

cycles. Prerequisite: Permission of the instructor.

MCB 6445 Microbial Bioluminescence (3). Molecular mechanisms, physiology, genetics and ecology of bioluminescence in micro-organisms, particularly bacteria. Prerequisite: Permission of the instructor.

MCB 6635 Marine Microbiology (3)
MCB 6635L Marine Microbiology Lab (1). Physiological-ecological study of the distribution and biology of marine bacteria; diseases of marine animals; bacterial role in oceanic mineral cycling. Prerequisites: General Microbiology MCB 3023 & Lab MCB 3023L and General Biochemistry BCH 3033 & Lab BCH 3033L or Microbial Physiology MCB 4404 and Lab MCB 4404L.

MCB 6920 Luminescence Workshop (2). Bioluminescence and chemiluminescent theory and methods applied to luminous bacteria and molecular biology. Prerequisite: Permission of the instructor.

MCB 6935 Advanced Topics in Microbiology (3). An intensive study of particular microbiological topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate status.

OCB 5634 Marine Ecology (3)
OCB 5634L Marine Ecology Lab (1). Review processes determining species distribution and abundance in marine ecosystems. Energy flow and trophic relationships examined. Prerequisite: Ecology PCB 3043. Corequisite: Concurrent registration of lecture with lab course.

OCB 5670L Techniques in Biological Oceanography (1). 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: Previous course in marine biology and Permission of the instructor.

PCB 5025L Molecular Biology Techniques Laboratory (3). Covers DNA and RNA extraction, digestion, electrophoresis, Southern analysis, RFLP analysis, PCR amplification, cloning and automated sequencing. Prerequisites: Graduate status or permission of instructor.

PCB 5184 Workshop in Microtechnique (1). Laboratory techniques required for preparation of tissues for

light microscopy/histological study. Prerequisite: Graduate status.

PCB 5195 Histochemistry/Microtechnique (3)
PCB 5195L Histochemistry/ Microtechnique Lab (1). Chemistry and use of fixatives and dyes; histochemistry emphasizes procedures used in research and pathology labs including techniques for enzymes, protein, carbohydrate, nucleic acids and lipids. Prerequisite: General Biochemistry BCH 3033 or Cell Physiology PCB 3203.

PCB 5215 Workshop in Histo—and Immunocyto—Chemistry (1). Laboratory techniques for preparation of paraffin-embedded and frozen sections; selected procedures to demonstrate the fundamentals of histochemical and immunocytochemical labeling methods. Prerequisite: Graduate status or permission of the instructor.

PCB 5238 Marine Comparative Immunology Workshop (1). A workshop at the Keys Marine Lab to present general and unique research methodologies associated with the immunology of marine animals. Prerequisite: Permission of the instructor.

PCB 5259 Topics in Developmental Biology (3). Molecular and cellular mechanisms in the development of plants and animals. Prerequisite: Permission of the instructor.

PCB 5307 Limnology (3)
PCB 5307L Limnology (1). Chemical and physical properties of standing and flowing freshwater systems; ecophysiology and interactions of the fresh water flora and fauna in relation to abiotic factors; oligotrophic to eutrophic conditions.

PCB 5327 Coastal Ecosystems and Modeling (3). Basics of ecology for coastal and wetland ecosystems. The theory and mechanisms of simulation modeling. Hands-on creation and application of computer models in ecological research. Prerequisites: Ecology PCB 3043 and Calculus I MAC 2311 or Permission of the instructor.

PCB 5356L Tropical Ecology Field Lab (3). Field course in Costa Rica with fieldwork in two or more diverse habitats (rainforest, and dry forest). Emphasis on diversity and interactions between species. Visits to selected sites of deforestation, conservation and restoration.

PCB 5358 Everglades Research and Resources Management (3). Application of basic skills in ecology to

contemporary issues in the Everglades area, with emphasis on the relation between research and management of wilderness, wildlife, vegetation, water and fire. Prerequisite: Ecology PCB 3043 or Permission of the instructor.

PCB 5376 Animal Physiological Ecology (3)
PCB 5376L Animal Physiological Ecology Laboratory (1). Evolution-oriented approach to physiological adaptations of animals living in diverse environments. Considers the inter relationship between behavior, energetics, and integrative regulation of metabolism. Prerequisite: Ecology PCB 3043 and Biochemistry BCH 3033. Corequisite: Concurrent registration of lecture with lab course.

PCB 5405 Biochemical Ecology (3). Principles of chemical communication between diverse organisms and the importance of a variety of allelochemicals in community structure. Prerequisite: Permission of the instructor.

PCB 5407 Workshop: Microelectrodes in Microbial Ecology (1). Use of microelectrodes to measure chemical microenvironments and biological processes in natural samples. Hands-on experience with O₂ and pH electrodes. Prerequisite: Permission of the instructor.

PCB 5423 Advanced Ecology: Populations and Communities (3). Advanced analysis of population and community ecology. Prerequisites: Ecology PCB 3043 or Permission of the instructor or graduate status.

PCB 5454 Advanced Ecology: Communities and Ecosystems (3). Advanced analysis of ecological principles pertaining to communities, ecosystems, and landscapes, with special emphasis on the South Florida and Caribbean region. Prerequisites: Ecology PCB 3043 or permission of the instructor or graduate status.

PCB 5596 Workshop: In Situ Hybridization (1). Analysis of gene expression by in situ hybridization techniques using whole mount and cryosectioned tissues. Prerequisite: Graduate status or permission of the instructor.

PCB 5615 Molecular and Organismal Evolution (3). The evolutionary relationships among nucleotides and proteins as well as the processes which yield these relationships. The possible molecular events leading to speciation.

Prerequisites: Genetics PCB 3063 and General Biochemistry BCH 3033.

PCB 5616 Applied Phylogenetics (3). Methods of phylogenetic analysis with a focus on pragmatic applications to ecological and evolutionary studies. Hands-on experience with current computer programs for phylogenetic analysis. Prerequisite: Graduate status or permission of the instructor.

PCB 5665 Human Genetics (3) PCB 5665L Human Genetics Lab (2). Principles and techniques in the analysis of humans and primates. Prerequisites: Genetics PCB 3063 and Lab PCB 3063L, or permission of the instructor. Corequisite: Concurrent registration of lecture with lab course.

PCB 5676 Evolution and Development of Sex (3). The evolutionary explanations for the evolution of sexual reproduction and models of sexual differentiation. Prerequisites: Genetics PCB 3063 and Evolution PCB 4674 or Permission of the instructor.

PCB 5677 Evolution and Development (3). The models and evidence for the interaction of development and evolution, using both plant and animal systems. Prerequisite: Permission of the instructor.

PCB 5686 Population Biology (3). PCB 5686L Population Biology Lab (1). Intrinsic properties of natural and theoretical populations and their dynamics and interactions, and responses to disturbance. Includes field problems and computer exercises. Prerequisite: A course in genetics and evolution, or Permission of the instructor. Corequisite: Concurrent registration of lecture with lab course.

PCB 5687 Evolutionary Ecology (3). PCB 5687L Evolutionary Ecology Lab (1). Adaptations and interactions of plants and animals in natural and disturbed habitats. Prerequisite: Ecology PCB 3043.

PCB 5785 Membrane Signal Transduction (3). Hormones and neurotransmitters as extracellular messengers. Membrane receptors and mechanisms of signal transduction: membrane channels and enzymes, direct linkage and G-protein linkage. Second messengers. Prerequisites: General Biochemistry BCH 3033 or Cell Physiology PCB 3203.

PCB 5786 Membrane Physiology (3). Chemical and physical properties of the plasma membrane, its biosynthesis and functions in transport and signal

transduction. Prerequisites: General Physics I PHY 3048, General Physics II PHY 3049 and General Biochemistry BCH 3033 or Cell Physiology PCB 3203.

PCB 5835 Neurophysiology (3) PCB 5835L Neurophysiology (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 BCH 3033 or Cell Physiology PCB 3203, and Calculus I MAC 2311.

PCB 5902 Readings in Stable Isotope Studies (1). Discussion of scientific papers published in the fields of isotope ecology and isotope biogeochemistry. Prerequisites: Graduate status or permission of the instructor.

PCB 5934 Topics in Skeletal Muscle Physiology (4). Advanced discussion of some aspects of the biophysics, biochemistry and physiology of skeletal muscle contraction. Topics may vary from year to year. Based on review articles and research papers. Prerequisite: Human Systemic Physiology I PCB 4733 or Human Physiology PCB 3703 and Cell Physiology PCB 3203 or General Biochemistry BCH 3033.

PCB 5938 Ecosystem Studies Seminar (3). Theory and practice of ecosystem analysis, based on discussion of current articles and books. Emphasis on using different approaches to understand natural complexity, with case studies researched by students. Prerequisites: Ecology PCB 3043 or permission of the instructor.

PCB 6025 Molecular and Cellular Biology I (3). Protein structure, catalysis, kinetics, and molecular conformation, intermolecular forces; Prokaryotic recombination, transcription and translation, gene regulation and genome organization. Prerequisites: Graduate status.

PCB 6027 Molecular and Cellular Biology II (3). Eukaryotic recombination, transcription, translation, gene regulation and genome organization; Cellular components, cell structure, cell division, cell signaling, development, immunology and cancer. Prerequisites: Graduate status.

PCB 6176C Biological Electron Microscopy (5). Principles and techniques of transmission and scanning electron microscopy as applied to bio-

logical materials. Lecture-laboratory combination, enrollment limited. Prerequisite: Permission of the instructor.

PCB 6236 Comparative Immunology (3). An analysis of the immune systems and mechanisms of invertebrate and vertebrate animals. Prerequisite: Permission of the instructor.

PCB 6237 Immunogenetics (3). The impact of classical and molecular genetic analyses on our understanding of the immune response. Prerequisite: A course in Immunology and Genetics.

PCB 6318 Readings in Marine Ecosystems Ecology (1). Analysis of current literature on theory, data and case studies of marine ecosystem ecology. Prerequisite: Graduate status or permission of the instructor.

PCB 6345C Quantitative Field Ecology (6). Methodology in the description and analysis of populations and communities. Prerequisites: Permission of the instructor and Introductory Statistics II STA 3123.

PCB 6526 Advanced Molecular Biology (3). Molecular genetics, controlling mechanisms, recombinant DNA, gene splicing and gene vector construction of viral, bacterial, plant and animal systems. Prerequisite: Permission of the instructor.

PCB 6566 Chromosome Structure and Function (3). Structural organization and function of the prokaryotic and eukaryotic chromosome: euchromatin/heterochromatin, replication, repair, DNA sequence organization and changes during differentiation and development. Prerequisite: Permission of the instructor.

PCB 6786 Membrane Biophysics (3). The structure and function of cell membranes: ionic transport, passive electrical properties, and excitation. Prerequisite: Permission of the instructor.

PCB 6926 Workshop Biology—Spatial Analysis and GIS (1-2). Introduction to interpretation and quantitative analysis of spatial data, use of computer-based image processing and Geographic Information Systems as tools for research, application to South Florida landscapes. Prerequisite: Permission of the instructor.

PCB 6933 Trends in Neurobiology (2). Critical analyses and discussions of selected research articles of current interests. Seminar format. Prerequisite: Permission of the instructor.

PCB 6935 Advanced Topics in Genetics (3). An intensive study of particular genetical topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate status.

PCB 7235 Reproductive Immunology (3). Molecular and cellular interactions in early development, ontogenetics, and mother and fetus. Prerequisite: Permission of the instructor.

PCB 7676 Evolution and Development of Sex (3). Models of sexual differentiation and reproduction treated in an evolutionary context. Prerequisite: Permission of the instructor.

PCB 7689 Advanced Topics in Population and Evolutionary Genetics (3). Comparison of the synthetic and mutational drift hypotheses; relationships between molecular and phenotypic evolutionary rates and the phenotypic effects of various forms of mutation. Prerequisite: Permission of the instructor.

ZOO 5265 Biology of Crustaceans (3). **ZOO 5265L Biology of Crustaceans Laboratory (1).** Morphology, physiology, systematics and evolution in crustaceans.

ZOO 5424 Herpetology (3) **ZOO 5424L Herpetology Laboratory (1).** Biology of amphibians and reptiles from a systematic perspective. The three orders of living amphibians and the six living orders of reptiles are covered in detail. Prerequisite: General Biology I BSC 1010 and General Biology II BSC 1011, Ecology PCB 3043, or permission of the instructor. Corequisite: Concurrent registration of lecture with lab course.

ZOO 5456 Ichthyology (3) **ZOO 5456L Ichthyology Lab (1).** Systematics, structure, function, ecology, and evolution of fishes. Prerequisites: General Biology I BSC 1010, General Biology II BSC 1011 and Ecology PCB 3043. Corequisite: Concurrent registration of lecture with lab course.

ZOO 5479 Workshop in Field Ornithology: Mark and Recapture Methods (1). Instruction in techniques of banding wild birds, including their capture with mist nets, identification in the hand, and maintenance of federally required records. Prerequisites: Ornithology ZOO 4472 and Lab ZOO 4472L or permission of the instructor.

ZOO 5732 Advanced Anatomy Demonstration (1-4). Dissection and demonstration of the human body with the emphasis on structure and function. May be repeated to a maximum of eight credits. Prerequisite: Human Gross Anatomy I ZOO 3733 and Lab ZOO 3733L, Human Gross Anatomy II ZOO 3734 and Lab ZOO 3734L or permission of the instructor.

ZOO 5745 Advanced Neuroanatomy (3). In-depth knowledge of the embryonic development, structure, and function of the human nervous system with a great deal of clinical consideration. Prerequisite: Neuroscience ZOO 4743 or permission of the instructor.

ZOO 5746 Comparative Neurobiology (4). Structure and function of neural systems at many levels including biophysical and cellular mechanisms, molecular processes, neural circuits, development, and anatomy. Prerequisite: Graduate status or permission of the instructor.

ZOO 6460 Workshop on Reptile and Amphibian Sampling (1). Biology and sampling methods for reptiles and amphibians. Prerequisite: Graduate status.

ZOO 6935 Advanced Topics in Zoology (3). An intensive study of particular topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate status.

Chemistry

Kenneth G. Furton, *Professor and Chairperson*

Jose Almirall, *Assistant Professor*

David Becker, *Associate Professor*

Yong Cai, *Assistant Professor*

David Chatfield, *Associate Professor*

Piero R. Gardinali, *Assistant Professor*

Arthur W. Herriott, *Professor and Dean*

Gary G. Hoffman, *Associate Professor*

Rudolf Jaffe, *Professor*

Jeffrey A. Joens, *Professor*

Konstantinos Kavallieratos, *Assistant Professor*

Leonard S. Keller, *Professor, Undergraduate Program Director and Coordinator of Organic Chemistry Laboratories*

John T. Landrum, *Professor*

Janet Linehack, *Professor*

Ramon Lopez de la Vega, *Associate Professor*

Kevin E. O'Shea, *Associate Professor, Graduate Program Director*

J. Martin Quirk, *Professor*

Kathleen Rein, *Assistant Professor*

Stephen Winkle, *Associate Professor*

Stanislaw F. Wnuk, *Associate Professor*

Graduate Admission Requirements:

A minimum undergraduate grade point average of 3.0/4.0 in chemistry and cognate science and GRE score of 1000 (verbal + quantitative) or greater are required except by special permission of the graduate committee. Students are also encouraged to take the GRE chemistry subject exam. Students whose native language is not English must score 550 or higher on the Test of English as a Foreign Language (TOEFL).

Students whose undergraduate degree is not equivalent to the American Chemical Society certified Bachelor of Science degree in chemistry shall make up any deficiencies prior to taking graduate courses in the areas where such deficiencies exist. For example, students who have not completed quantum mechanics or instrumental analysis must complete Graduate Physical Chemistry (CHM 5425) and Graduate Analytical Methods (CHM 5150). Students are required to make

up deficiencies before they can be admitted into the Ph.D. program.

Every student entering the graduate program in chemistry will be required to take two entrance/proficiency examinations covering standard undergraduate-level material in organic chemistry and physical chemistry (thermodynamics and kinetics). The proficiency exams will be administered to incoming graduate students in the week preceding the fall and spring semesters. If a student does not receive a grade of "pass" on the organic chemistry proficiency exam, the student must show proficiency by completing Graduate Organic Chemistry (CHM 5225) with a grade of "B" (3.0/4.0) or higher. If a student does not receive a grade of "pass" on the physical chemistry proficiency exam, the student must show proficiency by completing Graduate Physical Chemistry (CHM 5425) with a grade of "B" (3.0/4.0) or higher. Students must show proficiency in these two areas by the end of their first semester, or they will be dismissed from the program.

Full-time graduate students generally serve as a Teaching Assistant (TA) in the Department of Chemistry for their first semester. Ph.D. candidates must serve for not less than one year as a teaching assistant. This requirement will be waived only when, in the opinion of the department, unusual circumstances justify such action. TA's are awarded on a competitive basis, require a minimum cumulative GPA of 3.0, and are continued for up to two years for M.S. students and four years for Ph.D. students who maintain acceptable academic performance. Graduate students must maintain a 3.0/4.0 GPA (only courses required by the graduate program will be counted in the GPA). If the GPA drops below a 3.0 for one semester, the student will be placed on academic probation. A student who fails to raise his/her GPA to 3.0 or higher in two semesters will be dismissed from the program.

A limited number of Graduate Research Assistantships (RA's) are available after the student's first semester and are awarded on a competitive basis by the individual faculty members who have externally funded research projects.

Formal admission to the M.S. and Ph.D. programs and awards of teaching assistantships are granted by the Graduate Program Director based on a ranking of graduate applicants by the Graduate Committee.

Master of Science in Chemistry

The requirements for completion of the Master of Science degree are:

1. A minimum of 32 credits of course work, a grade of 'C' or higher must be obtained in all courses with a cumulative grade point average of 3.0 or higher which must include:

a) At least 9 credits of chemistry in at least three of the five major areas of chemistry (Analytical, Biochemistry, Inorganic, Organic, and Physical) as listed below:

Analytical	
CHM 5156	Advanced Chromatography
CHM 6157	Advanced Analytical Chemistry
Biochemistry	
CHM 5506	Physical Biochemistry
Inorganic	
CHM 5440	Kinetics and Catalysis
CHM 5650	Physical Inorganic Chemistry
Organic	
CHM 5250	Organic Synthesis
CHM 5236	Spectroscopic Techniques and Structure Elucidation
CHM 5260	Physical Organic Chemistry
Physical	
CHM 5490	Physical Spectroscopy
CHM 6430	Advanced Thermodynamics
CHM 6461	Statistical Thermodynamics
CHM 6480	Quantum Mechanics
CHM 5423	Atmospheric Chemistry
Courses not listed above may be counted as courses in one of the five areas with prior departmental approval.	
a)	At least 9 credits of additional graduate-level chemistry courses (excluding research and seminar) approved by the thesis committee in consultation with the Graduate Program Director with the following guidelines:
(1)	The courses must be 5000 or 6000 level chemistry courses (CHM prefixes) or approved cognates (up to a maximum of six credits) and
(2)	The following courses cannot count towards the 18 credits: Graduate Analytical Methods (CHM 5150); Graduate Organic Chemistry (CHM 5225) and Graduate Physical Chemistry (CHM 5425).

- c) Full time graduate students are required to register for one credit of CHM 6940 (Supervised Teaching) each semester they serve as teaching assistants.
- d) Full time graduate students are required to register for one credit of CHM 6935 (Graduate Seminar) or one credit of CHM 6936 (Chemistry Colloquium) each fall and spring semester.
- e) At least one credit of CHM 6936 (Chemistry Colloquium) is required. Each student must give a seminar at the colloquium for a letter grade in their second semester of graduate study.
- f) At least nine credits of CHM 6970 (Thesis Research) involving independent thesis research under the direction of a faculty member in the department.
- g) At least two credits of CHM 6971 (Thesis) taken in the semester in which the MS thesis is to be defended.
2. Submission and public presentation of a satisfactory research thesis as determined by the student's thesis committee.

The thesis committee will consist of the research advisor, a randomly-chosen committee member chosen by the graduate program director, and at least one additional committee member who has some expertise in the graduate student's research area.

Doctor of Philosophy in Chemistry

The requirements for completion of the Doctor of Philosophy degree in chemistry are:

1. A minimum of ninety (90) credits of course work. A grade of "C" or higher must be obtained in all courses with a cumulative GPA of 3.0 or higher. The courses must include:
 - a) At least nine credits of chemistry courses in at least two of the five major areas of chemistry (Analytical, Biochemistry, Inorganic, Organic, and Physical) as listed below:

Analytical	
CHM 5156	Advanced Chromatography
CHM 6157	Advanced Analytical Chemistry
Biochemistry	
CHM 5506	Physical Biochemistry
Inorganic	
CHM 5440	Kinetics and Catalysis
CHM 5650	Physical Inorganic Chemistry
Organic	
CHM 5250	Organic Synthesis

- CHM 5236 Spectroscopic Techniques & Structure Elucidation
- CHM 5260 Physical Organic Chemistry

Physical

- CHM 5490 Physical Spectroscopy
- CHM 6430 Advanced Thermodynamics
- CHM 6461 Statistical Thermodynamics
- CHM 6480 Quantum Mechanics
- CHM 5423 Atmospheric Chemistry
- Courses not listed above may be counted in one of the five areas with prior departmental approval.

b) At least nine credits of additional graduate-level chemistry courses (excluding research and seminar) approved by the thesis committee in consultation with the Graduate Program Director with the following guidelines:

(1) The courses must be 5000 or 6000 level chemistry courses (CHM prefixes) or approved cognates (up to a maximum of six credits) and

(2) The following courses cannot count towards the eighteen credits (a) and (b): Graduate Analytical Methods (CHM 5150); Graduate Organic Chemistry (CHM 5225), and Graduate Physical Chemistry (CHM 5425).

c) Full time graduate students are required to register for one credit of CHM 6940 (Supervised Teaching) each semester they serve as teaching assistants.

d) Full time graduate students are required to register for one credit of CHM 6935 (Graduate Seminar) or one credit of CHM 6936 (Chemistry Colloquium) each fall and spring semester.

e) At least two credits of CHM 6936 (Chemistry Colloquium) is required. Each student must give a seminar at the colloquium for a letter grade in his/her second and fifth semester of graduate study.

f) At least eight credits of CHM 7984 (Dissertation Research) involving independent thesis research under the direction of a faculty member in the department.

g) CHM 7980 (Dissertation) is taken in the semester in which the Ph.D. dissertation is to be defended. Prerequisite: Admission to candidacy.

2. Satisfactory completion of a series of 3-hour cumulative examinations. The student will begin taking the cumulative examinations after completing the proficiency requirements but no later than the beginning of the student's

second semester. Five examinations will be given per year. The student must pass 4 out of 10 consecutively-offered exams for admission to candidacy.

3. Submission, presentation, and satisfactory defense of an original research proposal and completion of a 'PreOral' examination before the end of the fourth semester (excluding summers). The examination will be conducted by the dissertation committee and is based on the student's doctoral research and includes questions from the student's major field as well as minor and cognate fields.

4. Submission and public presentation and defense of a satisfactory research dissertation as determined by the dissertation committee.

The requirements for an incoming student having either a Master's Degree or a Bachelor of Science degree are the same. Students having a M.S. in chemistry may transfer as many as 36 credits towards their Ph.D. degree, however only 6 of those credits will count to fulfill requirement (1) (formal course work requirement). Students may transfer more than 6 course work credits with special permission of the graduate committee. The number of additional course work credits required by the graduate committee will depend on, among other things, the student's performance in course work, the date course work was completed, and the area of Ph.D. concentration chosen by the student. The graduate student's Ph.D. thesis committee will consist of the research advisor, a member from outside the department, a randomly-chosen committee member chosen by the graduate program director from the departmental research faculty, and at least two additional committee members who have some expertise in the graduate student's research area. At least two members of the student's Ph.D. dissertation committee must be tenured in the Department of Chemistry. FIU courtesy professors may serve as research supervisors and co-major professors on a student's dissertation committee. It is expected that a meaningful collaboration will be established between courtesy faculty serving as co-major professors and the major professor from within the department. The degree of collaboration and expectations including co-authorship on publications resulting from such

collaborations must be agreed upon in the semester in which a graduate student chooses an advisor(s).

Financial Support

Full-time graduate students who are in good academic standing are eligible for financial support. Teaching and research assistantships are available on a competitive basis. Students may also apply for a waiver of both in-state and out-of-state tuition. Inquiries concerning application to the program and availability of financial support should be directed to the Chemistry Graduate Director.

Course Descriptions

Definition of Prefixes

CHM-Chemistry; CHS-Chemistry-Specialized; ISC-Interdisciplinary Natural Sciences; OCC-Oceanography-Chemical.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

CHM 5150 Graduate Analytical Methods (3). Analysis of analytical data, electrochemistry, spectro-analytical techniques, chromatography, survey of new analytical methods. Prerequisite: Graduate standing or permission of the instructor. (S)

CHM 5156 Advanced Chromatography (3). Intensive examination of the contemporary practice of chromatography including available chromatographic techniques, their selection and application. Prerequisite: CHM 4130 or permission of the instructor.

CHM 5181 Special Topics in Analytical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Core course Prerequisite: CHM 4130 or permission of the instructor.

CHM 5225 Graduate Organic Chemistry (3). Advanced topics in organic chemistry. Structure of organic molecules, reaction mechanisms, organic synthesis, and natural product chemistry. Prerequisite: Graduate standing or permission of the instructor. (F)

CHM 5236 Spectroscopic Techniques and Structures Elucidation (3). Advanced techniques for the spectroscopic identification of organic compounds. Interpretation of spectral information for determination of structures of various classes of organic

compounds. Prerequisites: CHM 4220 and CHM 4230L.

CHM 5250 Organic Synthesis (3). 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. Prerequisite: CHM 4220 or permission of the instructor.

CHM 5260 Physical Organic Chemistry (3). 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. Prerequisite: CHM 4220 and physical chemistry or permission of the instructor.

CHM 5280 Natural Products Chemistry and Biosynthesis (3). 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 the instructor.

CHM 5302 Organic Chemistry of Nucleic Acids (3). Organic chemistry of ribose sugars, nucleoside heterocyclic bases, mechanism-based inhibitors of enzymes involve in nucleic acid metabolism, and chemical synthesis of DNA. Prerequisite: CHM 4220 or permission of the instructor.

CHM 5306 Special Topics in Biological Chemistry (3). Investigation of one or more areas of biologically related chemistry. Prerequisites: CHM 4305 or permission of the instructor.

CHM 5351 Computer Modeling of Biological Molecules (3). Introduces use of computers in studying biological macromolecules. Simulations, visualization methods, software, databases. Prerequisite: CHM 3411, Biochemistry recommended.

CHM 5380 Special Topics in Organic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4220 and physical chemistry or permission of the instructor.

CHM 5423 Atmospheric Chemistry (3). Chemical processes in atmospheres. Photochemistry, chemical

kinetics, tropospheric and stratospheric chemical reactions, anthropogenic effects on the earth's atmosphere and chemistry of planetary atmospheres. Prerequisite: CHM 3412, CHM 3411, or permission of the instructor.

CHM 5425 Graduate Physical Chemistry (4). Prerequisite physics, the Schrodinger equation and its solutions, atoms and molecules, rotational, vibrational, and electronic spectroscopy. Prerequisite: Graduate standing or permission of the instructor.

CHM 5440 Kinetics and Catalysis (3). Theory of elementary reactions, activated complex theory, mechanisms of complex reactions. Prerequisites: CHM 3411, MAP 3302.

CHM 5490 Physical Spectroscopy (3). Introduction to atomic and molecular quantum states, selection rules, and fundamental principles of spectroscopy. Introduction to group theory and to the theory of UV/visible, infrared, Raman, microwave, nmr, photo-electron, and mass spectroscopies, and the applications of these methods to the determination of fundamental physical properties and the structure of organic and inorganic molecules. Prerequisite: Physical Chemistry.

CHM 5490L Physical Spectroscopy Lab (1). The theory of spectroscopy and the use of modern instrumentation to investigate molecular structure. Prerequisites: CHM 2211, 2211L. Corequisite: PHY 4604 or CHM 5490.

CHM 5503 Physical Chemistry of Nucleic Acids (3). Physical chemistry of nucleic acids including spectroscopic determination of structures of DNAs, RNAs, and DNA-protein complexes and thermodynamic and kinetic studies of nucleic acid-ligand complexes and nucleic acid structures. Prerequisite: CHM 4305 or permission of the instructor.

CHM 5506 Physical Biochemistry (3). Physical properties of biomolecules, molecular conformation; thermodynamic, kinetic, and spectroscopic properties of biomolecules. Prerequisites: CHM 4305 or permission of the instructor.

CHM 5517 Solid State (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, and dielectric materials. Prerequisite: CHM 5490 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 the instructor.

CHM 5650 Physical Inorganic Chemistry (3). Introduction to use of physical methods to determine the structure of inorganic compounds. Prerequisite: CHM 4610 or permission of the 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 the instructor.

CHM 5765 Aquatic Chemistry (3). Redox chemistry, chemistry of sediments, organic biogeochemistry, chemodynamics, and fates or organic pollutants in aqueous environments. Prerequisites: CHM 2211, CHM 4130, or permission of the instructor.

CHM 5931 Special Topics (3). A course covering selected special topics in chemistry.

CHM 5932 Special Topics (3). A course covering selected special topics in chemistry.

CHM 5936 Special Topics in Environmental Chemistry (3). An intensive examination of one or more areas selected by the instructor and students. Prerequisite: Permission of the instructor.

CHM 5XXX Forensic Chemistry (3). Advanced Analytical methods in Forensic Chemistry for application to the analysis of controlled substances, materials (i.e., paint, glass, and fibers), flammable and explosives residues with an emphasis on new methods and method development.

CHM 6157 Advanced Analytical Chemistry (3). Modern analytical methods, applications, and instrumentation. Topics include spectroscopy, chromatography, electrochemistry, optimization theory, and computerized instrumentation. Prerequisite: CHM 4130 or permission of the instructor.

CHM 6166 Hyphenated Analytical Techniques (3). Covers hyphenated analytical techniques required for the analysis of trace elements and organic compounds in environmental and biomedical sciences. Prerequisite: CHM 4130 or equivalent.

CHM 6281 Environmental Organic Chemistry (3). Characteristics, origin, fate and transformation of organic compounds in air, water, sediments and biota. Prerequisites: CHM 2211, CHM 3411, or permission of the instructor.

CHM 6340 Organic Geochemistry (3). Organic geochemistry of recent and ancient environments. Characteristics, origin, and transformation of organic matter in the geosphere, including formation of crude oil. Prerequisites: CHM 2211, CHM 3411, CHM 4130, GLY 1010, or permission of the instructor.

CHM 6430 Advanced Thermodynamics (3). The laws of classical thermodynamics and their application. Open and closed systems, irreversible processes, high and low temperature systems, solids, liquids, and gases. Core course. Prerequisite: CHM 3411 or permission of the instructor.

CHM 6449 Photochemistry (3). Fundamentals of photochemistry. Excited states, energy, and electron transfer processes, photo-oxidation, reactive species, and environmental photochemistry. Prerequisites: CHM 4220 or permission of the instructor.

CHM 6461 Statistical Thermodynamics (3). Principles of statistical thermodynamics. Ensembles, classical and quantum statistics, ideal and non-ideal gases, equilibrium, crystals, liquids, and polymers. Prerequisite: CHM 3411 or permission of the instructor.

CHM 6480 Quantum Mechanics (3). Introduction to quantum mechanics. The Schrodinger equation and its solutions, approximation methods, spin, symmetry, structure of atoms and molecules. Prerequisite: CHM 3411 or permission of the instructor.

CHM 6511 Polymer Chemistry (3). A quantitative study of polymers. Mechanism of formation, configuration of polymer chains, and the relationship between physical properties and chemical constitution. Prerequisite: CHM 3411 or permission of the instructor.

CHM 6621 Inorganic Reaction Mechanisms (3). Review of kinetics and determination of mechanism. Study of mechanism of reactions of coordination complexes including, electron transfer reactions, ligand substitution reactions, coordinated ligand reactions of importance in

homogeneous catalysis. Prerequisite: Physical Chemistry I (Kinetics).

CHM 6624 Coordination Chemistry (3). Electronic structure of metals and transition metal complexes; redox reactions; introduction to organo-metallic and Bioinorganic Chemistry. Symmetry and group theory applied to Transition Metal Complexes. Physical methods in Inorganic Chemistry. Prerequisite: CHM 3410 Physical Chemistry (Kinetics), CHM 3411 Physical Chemistry II (Quantum Mechanics).

CHM 6905 Independent Study in Chemistry (1-6). Independent study and problems in an area of chemistry, under faculty supervision. May be repeated. Prerequisite: Permission of the instructor.

CHM 6910L Graduate Research in Chemistry (VAR). The student works directly with a professor on a research project. Credit is assigned on the basis of four hr/wk per credit hour. Results to be presented as a seminar. Permission of the instructor.

CHM 6935 Graduate Seminar (1). An examination of various current research topics in chemistry. Prerequisite: Graduate standing.

CHM 6936 Chemistry Colloquium (1). Analysis of current developments and topics presented by faculty members and registered students. Prerequisite: Admission to graduate program in chemistry.

CHM 6940 Supervised Teaching (1-3). Graduate student serves as lecturer and demonstrator in undergraduate laboratories coordinated and supervised by a faculty member. May be repeated. A maximum of three hours may apply to the Master's degree. Prerequisite: Full graduate standing.

CHM 6949 Industrial Internship (3). A semester of supervised work in an outside laboratory. Prerequisite: Permission of the instructor.

CHM 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of Department.

CHM 6971 Master's Thesis (1-6). Completion of thesis. Prerequisite: Permission of major professor.

CHM 7980 Doctoral Dissertation (1-6) Completion of doctoral dissertation. May be repeated.

CHM 7984 Dissertation Research (1-10). Research towards the completion of a doctoral dissertation. Repeatable. Prerequisite: graduate standing.

CHS 5531 Forensic Analysis (3). Advanced topics on the role that physical evidence plays in the criminal justice system. Topics include crime scene methods, laboratory management and the legal framework as it relates towards physical evidence. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 5531L Forensic Analysis Lab (1). Laboratory to accompany Forensic Analysis CHS 5531. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, CHM 2211L or permission of the instructor.

CHS 5XXX Forensic Chemistry for Teachers (3). Incorporates concepts and techniques from the application of analytical chemistry, molecular biology, biochemistry, toxicology, and microscopy to forensic casework. Exposure to teaching resources in these areas and case study format of presentation. Open to education majors only. Prerequisites: CHM 3120, CHM 3120L, CHM 2211, and CHM 2211L or permission of instructor.

CHS 6946 Graduate Forensic Internship (1-6). Internship in an operational forensic laboratory, contributing in a specific manner on an assigned research project. Six hours a week minimum residence time per credit in the lab under the supervision of a host lab scientist and a faculty member is required. A final written report and presentation required. Prerequisites: Core courses in Forensic M.S. Program.

School of Computer Science

Jainendra K. Navlakha,
Professor and Acting Director
Bill Krayneck, *Associate Professor,*
Associate Director, and Graduate
Program Director
Walid Akache, *Instructor*
David Barton, *Professor*
Toby S. Berk, *Professor*
Shu-Ching Chen, *Assistant Professor*
Timothy Downey, *Instructor*
Raimund Ege, *Associate Professor*
Michael Evangelist, *Professor*
Mbola Fanomezantsoa, *Instructor*
Xudong He, *Assistant Professor*
Kim Irvine, *Instructor*
Faisal Kaleem, *Instructor*
Masoud Milani, *Associate Professor*
Ana Pasztor, *Professor*
Alexander Pelin, *Associate Professor*
Norman Pestaina, *Instructor*
Nagarajan Prabakar, *Associate*
Professor
Naphthali Rische, *Professor*
Marie Roch, *Assistant Professor*
Greg Shaw, *Instructor*
Geoffrey Smith, *Assistant Professor*
Joslyn Smith, *Instructor*
Wei Sun, *Associate Professor*
Mark A. Weiss, *Professor*

The School of Computer Science offers both a Masters of Science degree and a Doctor of Philosophy degree. The Master of Science degree provides study in state-of-the-art computer applications as well as an introduction to the theoretical foundations of computer science. The Doctor of Philosophy in Computer Science is designed to provide study in all major areas of computer science while leading to the frontiers of knowledge in a chosen field of concentration.

Master of Science in Computer Science

Admission

The following are in addition to the University's graduate admission requirements.

1. A Bachelor's Degree in Computer Science or equivalent degree in a related field from an accredited university or college as judged by the School's Graduate Committee.

2. 'B' average or better in all course work attempted while registered as an upper-division student in the Bachelor's degree.

3. Acceptable courses in Calculus and Statistics.

4. GRE (general test), scores of at least 1650 combined on the verbal,

quantitative, and analytical portions. The TOEFL scores must be at least 550. Both GRE and TOEFL must have been taken within the past five years.

5. Three letters of recommendation from persons in a position to judge the applicant's potential success in graduate study.

6. Approval of the Graduate Committee.

Required Courses

CEN 5011	Software Engineering	3
COP 6611	Advanced Operating Systems	3
COT 5420	Theory of Computation I	3
COT 6405	Analysis of Algorithms	3
In addition, the student must choose four courses from the following list, subject to the approval of the Graduate Committee:		
CAP 5602	Introduction to Artificial Intelligence	3
CDA 5312	Micro Processing for Software Designers	3
CDA 6939	Advanced Topics in Computer Architecture	3
CEN 5120	Expert Systems	3
CEN 6501	Distributed Processing	3
CEN 6502	Advanced Topics in Concurrent and Distributed Systems	3
CIS 6612	Advanced Topics in Software Engineering	3
CIS 6931	Advanced Topics in Information Processing	3
COP 5621	Compiler Construction	3
COP 6545	Advanced Topics in Database Management	3
COP 6556	Semantics of Programming Languages	3
COT 6421	Theory of Computation II	3
COT 6930	Advanced Topics in Theory	3
COT 6931	Cognitive Sciences	3

In addition, the student must satisfy one of the following two options:

Thesis Option

CIS 6970 Thesis 6

After completion of the other required courses, the student must conduct a research thesis. The topic must first be approved by the faculty member who will supervise the research and 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.

Non-Thesis Option

Additional Course Work 6

The student is required to take at least six additional semester hours of approved electives. The student then must pass a comprehensive examination which may have both written and oral parts and which is based on the student's course work. This examination may not be taken more than two times.

Remarks: The program requires a 'B' average or higher and a grade of 'C' or higher in each course. A maximum of two courses may be transferred into the program from outside the University, subject to the approval of the Graduate Committee.

Doctor of Philosophy in Computer Science

The requirements for admission to the doctoral program in Computer Science are:

1. A baccalaureate or master's degree in Computer Sciences, or equivalent degree in a related field as judged by the School's Graduate Committee.

2. Present a minimum of a 'B' average on all upper division work and acceptable courses in Calculus and Statistics.

3. GRE scores of at least 1650 combined on the verbal, quantitative and analytical portions. The TOEFL must be at least 550. The GRE and TOEFL must have been taken within the past five years.

4. Three letters of recommendation from persons in a position to judge the applicant's potential for advanced graduate study in computer science.

5. Approval of the School of Computer Science Graduate Committee. A maximum of 36 computer science related graduate semester hours earned elsewhere as a graduate degree seeking student may be transferred to FIU.

Required Courses

All students must complete the following courses and receive a grade of 'B' or higher in each.

CEN 6501	Distributed Processing	3
CEN 5011	Software Engineering	3
COP 6545	Advanced Topics in Database Management	3
COP 6611	Advanced Operating Systems	3
COT 5420	Theory of Computation I	3
COT 6405	Analysis of Algorithms	3
COT 6421	Theory of Computation II	3
COP 5621	Compiler Construction	3

In addition, all students:

1. Must successfully pass a Qualifying Examination based on the student's course work.

2. Must take at least 18 hours of graduate elective courses approved by the Graduate Committee.

3. Must write a dissertation on their research and successfully defend it orally.

4. Must take, in total, 90 credits beyond the B.S. This includes at least 24 dissertation credits at FIU.

5. Must spend at least one academic year in full-time residence. Normally, this will be after passing the Qualifying Examination.

For additional information and for specific rules and regulations relating to the graduate program, please refer to the web site, (<http://www.cs.fiu.edu/grad>) or write to:

Graduate Program Director
School of Computer Science
Florida International University
University Park
Miami, Florida 33199

Course Descriptions

Definition of Prefixes

CAP-Computer Applications; CDA-Computer Design/Architecture; CIS-Computer Information Systems; CGS-Computer General Studies; COC-Computer Concepts; COP-Computer Programming; COT-Computing Theory;

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

CAP 5602 Introduction to Artificial Intelligence (3). Presents the basic concepts of AI and their applications to game playing, problem solving, automated reasoning, natural language processing and expert systems. Prerequisite: COP 3530. (F)

CDA 6939 Special Topics: Advanced Topics in Computer Architecture (3). This course deals with selected special topics in computer architecture. Prerequisite: Permission of the instructor. (F, alternate years)

CEN 5011 Software Engineering (3). This course deals with the design of large scale computer programs. Included are topics dealing with planning design, implementation, validation, metrics, and the management of such software projects. Prerequisite: CIS 4610. (F)

CEN 5120 Expert Systems (3). Introduction to expert systems, knowl-

edge representation techniques and construction of expert systems. A project such as the implementation of an expert system in a high level AI-language is required. Prerequisite: COP 3530 or Permission of the instructor. (S)

CEN 6501 Distributed Processing (3). Study of distributed systems 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 6611, CEN 4500 and STA 6807. (F)

CEN 6502 Advanced Topics in Concurrent and Distributed Systems (3). Study of the major aspects of concurrent and distributed systems. Topics include foundations of concurrent computation, languages and tools for concurrent systems, distributed real-time systems, distributed multimedia systems, and concurrent object-oriented systems. (S, alternate years)

CIS 5900 Independent Study (1-10). Individual conferences, assigned readings, and reports on independent investigations.

CIS 5910 Project Research (1-6). Advanced undergraduate or master's level research for particular projects. Repeatable. Prerequisite: Permission of Department.

CIS 5931 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 6612 Special Topics: Advanced Topics in Software Engineering (3). This course deals with selected topics in software engineering. Prerequisite: Permission of the instructor. (S, alternate years)

CIS 6931 Special Topics: Advanced Topics in Information Processing (3). This course deals with selected special topics in information processing. Prerequisite: Permission of the instructor. (S, alternate years)

CIS 6970 Thesis (1-10). Prerequisite: Completion of all other requirements for the M.S. Degree in Computer Science.

CIS 7910 Graduate Research (1-25). Doctoral research prior to candidacy. Repeatable. Prerequisite: Permission of Department.

CIS 7980 Ph.D. Thesis (1-10). Prerequisite: Permission of the instructor. Admission to doctoral candidacy.

COP 5621 Compiler Construction (3). Basic techniques of compilation; scanning; grammars and LL and LR parsing, code generation; symbol table management; optimization. Prerequisites: MAD 3512 and CIS 4610. (F)

COP 6545 Advanced Topics in Database Management (3). Architecture and implementation aspects of DBMS; Distributed databases; Semantic models; advanced database languages, including Prolog-like languages; Semantic aspects of databases; Database machines. Prerequisite: COP 4540. (F)

COP 6556 Semantics of Programming Languages (3). This course provides an overview of systematic and effective approaches to programming. Abstraction; formal specification techniques; program verification and; semantics of programming languages. Prerequisite: COT 5420. (F, alternate years)

COP 6611 Advanced Operating Systems (3). Topics in operating system design: concurrent scheduling, security and protection, virtualizable architectures and monitors. Prerequisite: COP 4610. (S)

COT 5420 Theory of Computation I (3). Abstract models of computation; including finite automata, regular expressions, context-free grammars, pushdown automata, Turing machines. Decidability and undecidability of computational problems. Prerequisite: MAD 3512. (F)

COT 6405 Analysis of Algorithms (3). 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. Prerequisite: COP 3530. (S)

COT 6421 Theory of Computation II (3). Verification of program correctness; program schemes; fixed-point theory of programs; resolution and theorem proving. Prerequisite: COT 5420. (S)

COT 6930 Special Topics: Advanced Topics in Theory (3). This course deals with selected special topics in computing theory. Prerequisite: Permission of the instructor. (S, alternate years)

COT 6931 Topics in Cognitive Science (3). A "top-down" view of Computer Science, in particular artificial intelligence, by studying the computational aspects of human cognition. Prerequisites: COT 5420, COT 6421 or Permission of the instructor. (S, alternate years)

Creative Writing

Donald Watson, *Professor and Chairperson*

Lester Standiford, *Professor and Director, Creative Writing*

Lynne Barrett, *Associate Professor*

John Dufresne, *Professor*

Denise Duhamel, *Assistant Professor*

James W. Hall, *Professor*

Campbell McGrath, *Associate Professor*

Dan Wakefield, *Writer in Residence*

Master of Fine Arts in Creative Writing

The Master of Fine Arts in Creative Writing is the terminal degree for the practicing writer, designed to qualify the recipient to teach creative writing on the collegiate and university level. The program is housed at the Biscayne Bay Campus. Writers enjoy the opportunity for editorial experience with *Gulf Stream* magazine, the annual FIU literary Awards competition, the FIU Writers Workshop at Seaside, the Miami Book Fair, and the Writers on the Bay Series, which has included residencies by such writers as Gay Talese, Robert Pinsky, Carolyn Forché, Louis Simpson, John Wideman, Elmore Leonard, James Crumley, Luisa Valenzuela, Tony Hillerman, and Henry Taylor. Such major writers as Maxine Kumin, James Jones, Peter Hamill and George Garrett have served on the regular faculty.

Admission Requirements

Applicants must have a baccalaureate degree, a 3.0 GPA or a 1000 combined score on the GRE, and a minimum of nine semester hours of undergraduate work in creative writing. However, admission is based primarily on the strength of the applicant's submitted writing sample. Deadline is February 15.

Degree Requirements

Forty eight semester hours are required in studio/academic curriculum, with a minimum in each area as follows:

Literature	15
Writing Workshop (both poetry and fiction required)	18
Form and Theory	3
Thesis	6

There is no foreign language requirement. Graduate workshops include short fiction, the novel, popular fiction, screenwriting, creative non-fiction, and poetry. The program places emphasis on the preparation and completion of a book-length creative thesis.

Candidates must pass a final defense/examination.

Fellowships, teaching assistantships, and tuition remission scholarships are available on a competitive basis.

Course Descriptions

Definition of Prefixes

CRW-Creative Writing; ENG-English.

CRW 5130 Advanced Fiction Workshop (5). Practice in the techniques and analysis of fiction through the reading, discussion, and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW course work.

CRW 5331 Advanced Poetry Workshop (5). Practice in the techniques and analysis of poetry through the reading, discussion, and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW course work.

CRW 5620 Advanced Screenwriting Workshop (5). Practice in the techniques and analysis of screen-writing through the reading, discussion, and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW course work.

CRW 5934 Special Topics in Creative Writing (1-5). A course designed to give students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisites: CRW 2001 and three hours of CRW on the 3000/4000 level.

CRW 5935 Special Topics in Creative Writing (1-5). Gives students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisites: CRW 2001 and three hours of CRW on the 3000/4000 level.

CRW 5940 Advanced Independent Study in Creative Writing (1-5). Development and completion of a graduate level independent project in creative writing undertaken with the consent of the instructor. Prerequisite: Graduate standing and instructor permission.

CRW 6971 Creative Writing Thesis (3). Research and writing for the creative writing thesis. May be repeated. Prerequisite: 12 hours graduate CRW course work.

CRW 6972 Creative Thesis Continuation (1). Further guidance and direction for creative writing MFA candidates who have completed the two semester intensive sequence in CRW 6971. May be repeated.

CRW 6XXX Teaching Creative Writing (3). Instruction and practice in the pedagogy of creative writing instruction at various levels of student abilities.

ENG 5058 Form and Theory of Contemporary Literature (3). Various approaches and theories of practice in the major genres of imaginative writing, including development and articulation of the creative aesthetic. May be repeated. Prerequisite: Permission of the instructor.

Earth Sciences

Gautam Sen, *Professor and Chairperson*

William Anderson, *Assistant Professor*

Bradford Clement, *Professor*

Laurel Collins, *Assistant Professor*

Grenville Draper, *Professor*

Rosemary Hickey-Vargas, *Professor*

Michael Gross, *Associate Professor*

Jose Longoria, *Professor*

Andrew Macfarlane, *Associate Professor*

Florentin Maurrasse, *Professor*

Edward Robinson, *Research Associate*

Surendra Saxena, *Professor*

Neptune Srimal, *Visiting Assistant Professor*

Dean Whitman, *Associate Professor*

The department offers the Master of Science Degree and Doctor of Philosophy Degree in Geology with opportunities for concentrated studies in structural geology/tectonics, igneous petrology/geochemistry/economic geology, hydrogeology and environmental geology, stratigraphy/sedimentology, paleobiology, paleoecology and geophysics/paleomagnetism. In addition, students may select a concentration in the regional geology of Southern Florida, the Caribbean, and Latin America, including problems related to the above-mentioned fields. Overall, the graduate program emphasizes a multidisciplinary approach to solving geologic and environmental problems, and stresses the importance of field observation complemented by laboratory analysis.

The department is well-equipped with advanced and basic geological instrumentation. Major on-site analytical facilities are the electron microprobe (JEOL-8900), Scanning Electron Microscope (JEOL-5900), inductively coupled plasma emission spectro-analyzer (Jobin Yvon 70), and the paleomagnetism laboratory with cryogenic magnetometer. In addition the department owns a complete array of instruments for field geophysics and for field hydrologic studies, and two vehicles for transportation to local field sites. The department has facilities for micropaleontological studies, research in high pressure experimental petrology and experimental structural geology, a class 100 clean laboratory for processing isotopic samples, and a microscopy lab with heating/freezing stage for fluid inclusion studies. Excellent facilities for chemical analysis of water are also available

through formal connections with the Southeast Environmental Research Center.

Application Procedures

Admission decisions to the Program will be made by the Department's Graduate Admission Committee.

To be considered for admission applicants must submit the following documents prior to the admission deadlines.

1. FIU Graduate Application Form.
2. Certified transcripts of all college level work. When applicable, a certified English translation must accompany the original.
3. Graduate Record Examination scores taken within the previous two years, sent from the Education Testing Service.

4. Scores of English proficiency, when applicable, sent from the Education Testing Service.

5. Curriculum vitae or resume with pertinent information regarding applicant's previous experience and achievements.

6. A statement of intent, including a brief discussion (not to exceed 2000 words) of educational goals and career projections. The applicant may also include a copy of previous written scientific work.

7. Three letters of recommendation from former professors or academic advisors.

The Graduate Application Form, official transcripts, official GRE and TOEFL scores should be sent directly to the Office of Admissions, Florida International University, Miami, FL 33199, with the application fee. A copy of the application form, together with the curriculum vitae or resume, statement of intent and letters of recommendation should be sent to the Graduate Coordinator, Department of Earth Sciences, Florida International University, Miami, FL 33199.

Admission

To be admitted to the Graduate Program in Geology, a student must meet the following minimum requirements:

1. Hold a Bachelor's or Master's degree from an accredited college or university in a relevant discipline of science, engineering or mathematics.
2. Have a grade point average (GPA) of 3.0 or higher (or equivalent) during the last two years of undergraduate program, and 3.0 or higher during the Master's degree program.

3. Have a minimum combined score of 1000 on the verbal and quantitative sections of the Graduate Record Examination (GRE).

4. Provide at least three letters of recommendation from persons qualified to evaluate the applicant's potential for graduate work.

5. Students whose native language is not English must demonstrate an adequate level of proficiency in English as a foreign language. A score above 500 on the TOEFL (Test of English as a Foreign Language) of the Educational Testing Service is required.

6. Meet the University's general requirements for admission to graduate programs.

Financial Aid

The Earth Sciences Department offers a number of graduate teaching and research assistantships which are awarded each semester on a competitive basis. The assistantships provide a stipend and waiver of tuition, and are usually not awarded to students pursuing the Non-Thesis Track M.S. degree. Applicants interested in an assistantship should indicate this on the FIU Graduate Application form. In order to be considered for an assistantship the application should be submitted by February 15 for the Fall semester admission and by October 1 for Spring semester admission. Applicants seeking research assistantships should contact individual faculty members in their area of research interest.

Master of Science in Geology

The Master of Science degree is conferred upon successful completion of the requirements (listed below) of either the Thesis Track or Non-Thesis Track option of the degree program.

Thesis Track: Course Requirements: 36 credits, including:

GLY 5931/GLY 6931,	
Graduate Seminars	2
Courses in field of specialization	18
GLY 6971, Thesis	6
Electives	10
Courses in the field of specialization and electives are chosen by the student in close consultation with a faculty advisor. These courses are selected to fit the student's particular professional goals and to ensure sufficient depth and breadth of geological knowledge.	

Thesis Track: Graduation**Requirements**

1. A minimum GPA of 3.0 in all coursework counted toward the 36 credits required for the Master's degree.

2. Satisfactory completion and defense of a thesis proposal and an original research thesis.

Non-Thesis Track: Course Requirements:

36 credits, including:

Courses in field of specialization 18
Electives 18

Electives may include at most 3 credits of Supervised Research (GLY 6910) leading to a research paper.

Non-Thesis Track: Graduation Requirements:

A minimum GPA of 3.0 in all course work counted toward the 36 credits required for the Master's degree.

Doctor of Philosophy

The Doctor of Philosophy in Geology is conferred based on satisfactory completion of required course work, a demonstrated mastery of a broad field of knowledge, and the ability to conduct original and independent research. A minimum of 90 credit hours beyond the Bachelor's degree is required for the Ph.D. A minimum of 24 credit hours are devoted to research toward the Ph.D. Dissertation. A maximum of 30 credit hours may be transferred from other graduate programs with the approval of the Departmental Graduate Committee.

Course Requirements

GLY 5931/GLY 6931, Graduate Seminars 2
Formal graduate level courses (non-research courses chosen in consultation with the major advisor) 30
GLY 7980, Dissertation Research 24
The remaining 34 credits may be either formal graduate level courses or independent study and special projects, selected in consultation with the major advisor.

Graduation Requirements

1. A minimum GPA of 3.0 in all course work required for the Ph.D. degree.

2. Satisfactory performance on qualifying examinations on general geologic knowledge and the field of subspecialization. Failure to pass this examination will terminate the student's enrollment in the program.

3. Completion and successful defense of a dissertation. Members of the

dissertation committee will be jointly determined by the student's advisor and the Graduate Admission Committee.

Participation in Instructional Activities

All students in the program are required to participate in instructional aspects of the Department as teaching assistants. Specific assignments may include supervision of laboratories, assistance on field trips, or curatorial duties.

Fields of Concentration**Geophysics/Paleomagnetism**

Geophysical investigative techniques using gravity, magnetism, seismic reflection and refraction, earthquake seismology, and thermal properties. Land-based geophysical studies of the Caribbean and South American seismicity and crustal structure.

Hydrogeology/Environmental Geology

Field and modeling approaches to groundwater flow and solute fluxes in subsurface and near subsurface environments. Interaction of surface water and groundwater, solute transport, chemical and isotopic tracing techniques, watershed hydrology in south Florida, other U.S. locations, and Central America.

Igneous Petrology/Geochemistry/Economic Geology

Research problems in petrology/geochemistry of igneous and metamorphic rocks with reference to their origin, and relationships in time and space. Origin of hydrothermal and other economic deposits. Field occurrence, geochemistry and petrogenesis of crystalline rocks, especially those of the Caribbean region and South America. Generation of associated (often, economically significant) hydrothermal deposits. Application of trace element and isotope geochemistry to the study of these petrogenetic associations.

Paleobiology/Paleoecology

Research applied to taxonomy, phylogeny, evolutionary processes, paleoecology, taphonomy, and biostratigraphy as applied to select fossil groups. Zonal distribution, facies analysis, and paleoecology of different groups of fossils. Specialization may be in macrofossils or microfossils, applied to several aspects of the paleobiology of particular fossil groups, including biodiversity,

paleoecology, response to global climatic changes, oceanographic or environmental and time relationships of selected organisms.

Regional Geology

Multidisciplinary geologic research applied to a specific geographic area.

Stratigraphy/Sedimentology

Sedimentary petrology, sedimentary environments, paleo-oceanography, sequence stratigraphy, cyclic stratigraphy, microfacies analysis, and basin analysis. Field and laboratory techniques applied to solution of problems in these topics, especially as applied to sedimentary rock sequences of south Florida, the Caribbean, and Meso-America. Evolution of the sedimentary basins of these regions and their relationships to global and regional tectonics.

Structural Geology – Tectonics

Field oriented research on methods of structural analysis. Analysis of geologic deformations based upon the principles of mechanics and utilizing research data from laboratory and field investigations of folding, fabrics, fracture, and faulting. Structural geology of the Caribbean and South America.

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

EVS-Environmental Science; GEO-Geography/Systematic; GLY-Geology; MET-Meteorology; OCE-Oceanography; OCG-Oceanography-Geological; OCP-Oceanography/Physical.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

GLY 5021 Earth Sciences for Teachers (3). Study of geological materials and processes, as covered in Physical Geology, but at a higher level and with additional assignments. Prerequisite: Permission of the instructor. Corequisite: GLY 5021L. (F,S,SS)

GLY 5021L Earth Sciences for Teachers Laboratory (1). Study of the properties of minerals and rocks; interpretation of topographic and geologic maps; study of the geology of Florida, including field trips. Prereq-

uisite: Permission of the instructor.
Corequisite: GLY 5021. (F,S,SS)

GLY 5106 Paleocology and Paleo-environments (3). Paleocology of fossils, paleobiodiversity, sedimentary facies, and environments, skeletal mineralogy, paleoecological gradients, chronologic scales and paleobiogeography and global patterns. Prerequisite: Permission of the instructor.

GLY 5158 Florida Geology (3). Detailed lithostratigraphic and biostratigraphic analyses of Southeast Florida and their relationship to tectonics, paleoclimates. Prerequisite: GLY 3511 and GLY 3511L. (S in alternate years)

GLY 5245 Water-Rock Interaction (3). Survey of geochemical processes at the water-rock interface. Topics include absorption of inorganic and organic ions, colloid stability in groundwater, mineral dissolution and precipitation. Prerequisites: CHM 1046, MAC 3312, GLY 4311 or Permission of the instructor.

GLY 5246 Geochemistry (3). GLY 5246L Geochemistry Lab (1). Origin of chemical elements and principles affecting their distribution in the solar system, solid earth and hydrosphere. Use of chemical data to solve geologic problems. Prerequisites: Physical Geology and General Chemistry. (S in alternate years)

GLY 5283C Application of ICPES in Geochemistry (3). Determination of elemental abundances in rocks, soils, natural water using inductively coupled plasma emission spectroscopy (ICPES). Instrumental principles, sample selection and preparation methods and application of results to research. Prerequisites: CHM 1045, CHM 1046 or permission of the instructor. (S or SS)

GLY 5284 Electron Microprobe and Scanning Electron Microscopy (3). Involves imaging and analysis of geological and other materials using Electron Probe and Scanning Electron Microscope. (F)

GLY 5284L Electron Microprobe and Scanning Electron Microscopy Lab (1). Involves imaging and analysis of geological and other materials using Electron Probe and Scanning Electron Microscope. (F)

GLY 5286 Research Instrumentation and Techniques in Geology (3). Survey of techniques and instrumentation used in geological research,

including computing and data handling. Prerequisite: Graduate standing or Permission of the instructor. Corequisite: GLY 5286L. (F)

GLY 5286L Research Instrumentation and Techniques in Geology Lab (1). Introduction to advanced instrumentation and analytical techniques in Geology, including computing and data processing. Prerequisite: Graduate standing or Permission of the instructor. Corequisite: GLY 5286. (F)

GLY 5298 Topics in Geochemistry (3). Seminar covering current research in selected areas of low-temperature geochemistry: oceans and oceanic sediments; continental waters and sediments; hydrothermal systems. Prerequisite: GLY 5246 or Permission of the instructor. (F)

GLY 5322 Igneous Petrology and Geochemistry (3). Presentation and discussion of current topics in igneous petrology and geochemistry in a seminar format. Prerequisite: Permission of the instructor. (S)

GLY 5335 Metamorphic Geology (3). Metamorphic mineralogy; characteristics of low, medium and high pressure metamorphic rocks; pressure-temperature determinations; metamorphic textures; modeling and determination of P-T-t paths. (F)

GLY 5335L Metamorphic Geology Lab (1). Petrographic examination of metamorphic rocks. (F)

GLY 5346 Sedimentary Petrology (3). Systematic study of sedimentary rocks. Special emphasis on genetical aspects, geochemistry, paleontology, mineralogy, and microfacies. Emphasizes microscopic study. Prerequisite: GLY 4551. Corequisite: GLY 5346L. (F in alternate years)

GLY 5346L Sedimentary Petrology Lab (1). Laboratory studies of sediments and sedimentary rocks with emphasis on microscopic analyses and geochemical techniques. Prerequisite: GLY 4551 and GLY 4551L. Corequisite: GLY 5346. (F in alternate years)

GLY 5408 Advanced Structural Geology (3). Advanced treatment of the theory of rock mechanics to solve problems of natural rock deformation. Prerequisites: GLY 4400, MAC 3413, or Permission of the instructor. Corequisite: GLY 5408L. (S)

GLY 5408L Advanced Structural Geology Lab (1). Problem solving in

theory of rock deformation. Experimental procedures in rock mechanics. Corequisite: GLY 5408. (S)

GLY 5415 Caribbean Geology and Tectonics (3). Integration of geologic and geophysical data to understand the evolution and present tectonic configuration of the Caribbean area. Prerequisite: Permission of the instructor.

GLY 5425 Tectonics (3). Properties of the lithosphere; plate kinematics and continental drift; characteristics of plate boundaries; mountain belts; formation of sedimentary basins. Prerequisites: GLY 1010, 1100, 4400, 4310, 3200 or Permission of the instructor. (S)

GLY 5455 Physical Volcanology (3). Description of volcanoes and their products, geophysical and tectonic constraints on volcanic processes, and modeling and forecasting of volcanic eruptions. Prerequisite: GLY 4450, GLY 4310 or Permission of the instructor. (F in alternate years)

GLY 5457 Analysis of Geophysical Data (3). Reduction and interpretation of geophysical data, including time series analysis, continuation of potential fields. Three-dimensional modeling of gravity, magnetic data, integrated geophysical surveys. Prerequisites: GLY 4450, PHY 3048, PHY 3049, MAC 3311, MAC 3312, MAP 3302. Corequisite: GLY 5457L. (F)

GLY 5457L Analysis of Geophysical Data Lab (1). Field and laboratory applications of geophysical techniques. Computer aided analysis and three-dimensional modeling of gravity and magnetic data. Prerequisites: GLY 4450, PHY 3048, PHY 3049, MAC 3311, MAC 3312, MAP 3302. Corequisite: GLY 5457. (F)

GLY 5495 Seminar in Geophysics (3). Detailed investigation of current geophysical techniques, including topics on instrument design. Prerequisite: GLY 5457 or Permission of the instructor. (S)

GLY 5497 Topics in Structural Geology and Tectonics (3). Selected advanced topics in structural geology and rock deformation. Latest advances in crustal tectonics. Prerequisite: GLY 5408. (S)

GLY 5599 Seminar in Stratigraphy (3). Discussion of research projects and/or current literature in stratigraphic correlation as derived from sedimentologic principles and biozonation. Prerequisite: GLY 5346. (F,S)

GLY 5608 Advanced Paleontology I (3). Discussion of current literature and research projects on evolution, systematics functional morphology, with reports by members of the seminar. Prerequisites: GLY 4650, GLY 5609, or Permission of the instructor. (F)

GLY 5621 Caribbean Stratigraphic Micropaleontology (3). Microscopic study of biostratigraphic type sections from the Caribbean area. Emphasis on planktonic foraminifera and radiolaria, paleoecologic and paleoclimatic interpretations. Prerequisite: GLY 4650 or Permission of the instructor. (F)

GLY 5710 Watershed Hydrology (3). Hydrologic processes on watershed, water budgets, effects on water quality, field investigative methods using tracers and hydrometric measurements, hydrologic and hydrochemical models.

GLY 5754 Applied Remote Sensing in the Earth Sciences (3). Application of remote sensing and image analysis in the earth sciences; qualitative and quantitative satellite image and air photo interpretation. Emphasis is on use of computer processing packages. Prerequisites: GLY 1010 or consent of instructor.

GLY 5758 GIS and Spatial analysis for Earth Scientists (3). Application of GIS technology to spatial problems in the Earth Sciences. Topics include: spatial statistics, sampling theory, surface estimation, map algebra, and suitability modeling.

GLY 5785 Caribbean Shallow-Marine Environments (3). Field study of multiple tropical environments in the Caribbean area. Dynamic processes and coastal evolution in response to natural and human-induced changes.

GLY 5786 Advanced Field Excursion (3). A study of the geology of a selected region of the world followed by 10-12 day field trip in order to study the field relationships of the geologic features. Special emphasis is given to stratigraphic, structural and tectonic relationships of lithic package. Prerequisite: Permission of the instructor. (SS)

GLY 5808 Mining Geology (3). Application of theoretical models of ore formation to exploration and the use of geochemical and geophysical techniques in the search for ore deposits. Prerequisites: GLY 4311 and CHM 1046. (F)

GLY 5816 Economic Geology (3). Economically important metal deposits

of sedimentary, igneous and hydrothermal origins and their geologic settings and characteristics. Prerequisites: GLY 1010, GLY 4300, CHM 1045, CHM 1046. (S)

GLY 5826 Hydrogeologic Modeling (3). Techniques used in modeling groundwater flow and solute transport in geologic systems. Case studies of significant aquifers. Prerequisites: GLY 5827, MAP 2302, or Permission of the instructor. (S,SS)

GLY 5827 Hydrogeology (3). Physics of flow in geological media. Saturated and unsaturated flow, groundwater and the hydrologic cycle, estimating hydraulic parameters of aquifers, introduction to chemical transport. Prerequisite: GLY 1010, MAC 2312, and PHY 2053, or Permission of the instructor. (F)

GLY 5827L Hydrogeology Lab (1). Laboratory, field, and computer exercises to complement GLY 5827. (F)

GLY 5828 Chemical Hydrogeology and Solute Transport (3). Quantitative analysis of hydrologic, geologic, and chemical factors controlling water quality and the transport and fate of organic and inorganic solutes in the subsurface. Prerequisites: GLY 5827. (S)

GLY 5889 Geology for Environmental Scientists and Engineers (3). Characterization of rocks and rock masses; geological maps; seismic hazards; weathering of rocks; hydrologic cycle; slope stability; coastal processes; geophysical techniques. Course includes field trips in the South Florida region. Prerequisites: CHM 1045, GLY 1010 or Permission of the instructor. (S)

GLY 5931 Graduate Seminar (1). Presentation or critical examination of current research problems in geology. A selection of topics is considered each term. Topics may also include individual research in the student's field of investigation. Prerequisite: Graduate standing or Permission of the instructor. (F,S,SS)

GLY 5XXX Stable Isotope Biogeochemistry (3). Application and theory of stable isotope approaches to biogeochemistry. Topics: Introduction to IRMS machines, C/N/O/H/S (biogeochem. processes), sampling/lab. prep., and recent advances. Prerequisites: One year of chemistry or consent of instructor.

GLY 6159 Stratigraphy of the Circum Caribbean Region (4). Detailed lithostratigraphic and biostratigraphic analyses of Caribbean islands, Central America, northern South America and Caribbean basin. Prerequisite: GLY 5621 or Permission of the instructor. (SS)

GLY 6247 Trace Element and Isotope Geochemistry (3). Principles of trace element and isotope fractionation and radioactive decay, and their application to the interpretation of igneous rocks and the chemical evolution of the earth. Prerequisite: GLY 5246 or Permission of the instructor. Corequisite: GLY 6247L. (S)

GLY 6328 Advanced Igneous Petrology (3). Interpretation of igneous rocks; chemistry and physics of magma generation and crystallization; origin of major igneous rock series with emphasis on tectonic controls. Prerequisite: Permission of the instructor. Corequisite: GLY 6328L. (S)

GLY 6328L Advanced Igneous Petrology Lab (1). Identification of rocks using microscopic and microprobe techniques. Prerequisite: Permission of the instructor. Corequisite: GLY 6328. (S)

GLY 6337 Metamorphic Phase Equilibria (3). Theory and methods of calculation of metamorphic phase equilibria and P-T paths using appropriate analysis of composition space, activity models, geothermometry, geobarometry. Origin and interpretation of zoning in metamorphic minerals. Prerequisites: GLY 5335 or Permission of the instructor. (F)

GLY 6345 Sedimentary Petrography (3). Comparative study and fundamental observations of sedimentary rocks in hand specimens and under the petrographic microscope; their classification, theoretical and practical implications. Prerequisites: GLY 4551 or Permission of the instructor. (F)

GLY 6345L Sedimentary Petrography Laboratory (1). Laboratory studies of sedimentary rocks in thin section. Prerequisites: GLY 4555 or permission of the instructor. Corequisite: GLY 6345. (F)

GLY 6353 Microfacies Analysis (3)
GLY 6353L Microfacies Analysis Laboratory (1). Identification and interpretation of the fossil and mineralogical constituents of sedimentary rocks in thin section. Emphasis is

placed on the paleoecological significance of fossil remains in carbonates. Prerequisites: GLY 4551 or Permission of the instructor. (S)

GLY 6392 Topics in Igneous Petrology and Geochemistry (3). Research seminar in contemporary petrology and geochemistry. Student presentation on thesis research. Prerequisite: GLY 5322 or Permission of the instructor. (F,S)

GLY 6427 Quantitative Geotectonics (3). Application of continuum mechanics and heat transfer to problems in geology. Observational constraints on earth properties. Emphasis is on problems relating to the earth's lithosphere. Prerequisites: GLY 4450, GLY 4400, GLY 5425 and MAP 3302 or Permission of the instructor. (F in alternate years)

GLY 6444 Quantitative Analysis of Joints and Faults (3). Application of fracture mechanics to geologic problems, including the analysis of local and regional stress fields, bedrock fracture systems, estimation of fracture related strain, and the influence of mechanical properties on rock failure. Prerequisites: GLY 4400, GLY 4450, GLY 5425 or Permission of the instructor. (F in alternate years)

GLY 6447 Advanced Topics in Structural Geology and Tectonics (3). Detailed exploration of selected research topics in structural geology and tectonics. Prerequisites: GLY 5446 or Permission of the instructor. (F,S)

GLY 6448 Stress in the Earth's Crust (3). The distribution and magnitude of stress in the earth's crust, laboratory derived values for earth stress, in situ stress measurements, regional stress patterns and sources of stress in the lithosphere. Prerequisites: GLY 4400, GLY 4450, GLY 5425 or Permission of the instructor. (S)

GLY 6468 Paleomagnetism (3). Physics of rock and mineral magnetism, geomagnetism and paleomagnetism; field and laboratory methods, geomagnetic field behavior, magnetostratigraphy, apparent polar wander. Prerequisite: GLY 4400, GLY 3202 or Permission of the instructor. Corequisite: GLY 6468L. (F)

GLY 6468L Paleomagnetism Laboratory (1). Physics of rock and minerals magnetism, geomagnetism and paleomagnetism; field and laboratory methods, geomagnetic field behavior, magnetostratigraphy, apparent

polar wander. Prerequisite: GLY 4400, GLY 3202 or Permission of the instructor. Corequisite: GLY 6468. (F)

GLY 6485 Physics of the Earth (3). Properties and dynamics of the Earth's interior studied from a physical perspective. Topics include heat flow, fluid flow, earthquake seismology. Prerequisites: GLY 4450 and MAC 3313. (F)

GLY 6496 Advanced Topics in Geophysics (3). Discussion of research projects and current literature in geophysics. Prerequisite: GLY 5495. (S)

GLY 6517 Basin Analysis (3). Analysis of sedimentary basins based on their origin, paleogeographic evolution and tectonic setting. Emphasis is placed on the tectonic evolution and economic potential of sedimentary basins. (S in alternate years)

GLY 6517L Basin Analysis Lab (1). Analysis of different types of sedimentary basins using a case history approach. Corequisite: GLY 6517. (S in alternate years)

GLY 6595 Topics in Sedimentology (3). Oral presentation by students of research projects and survey of relevant literature with reports by members of the seminar. Prerequisite: GLY 5346. (S in alternate years)

GLY 6626 Stratigraphic Micropaleontology: Foraminifera (3). Nomenclature, taxonomy, and biostratigraphy of Cretaceous and Cenozoic planktonic foraminifera. Studies of stratigraphically important taxa from Caribbean land sections, piston cores, and DSDP/ODP sites. Prerequisites: GLY 5621 or Permission of the instructor. (F in alternate years)

GLY 6627 Stratigraphic Micropaleontology: Radiolaria (3). Nomenclature, taxonomy and biostratigraphy of Cretaceous and Cenozoic radiolaria. Studies of stratigraphically important taxa using Caribbean land sections, piston cores, and DSDP/ODP sites. Prerequisites: GLY 5621 or Permission of the instructor. (S in alternate years)

GLY 6628 Stratigraphic Micropaleontology: Calcareous Nannofossils (3). Nomenclature, taxonomy, and biostratigraphy of Triassic to Recent nannofossils. Intensive training of identification of marker taxa using land and DSDP/ODP sites. Prerequisites: GLY 5621 or Permission of the instructor. (S in alternate years)

GLY 6690 Topics in Paleontology (3). Oral presentation and discussion of current research projects and relevant literature, with reports by members of the seminar. Prerequisite: GLY 5608 or Permission of the instructor. (F)

GLY 6809 Hydrothermal Geochemistry (3). The mineralogy, thermodynamics, chemistry and isotope chemistry of hydrothermal and geothermal systems, with an emphasis on the transport of solutes in hydrothermal solutions and ore-forming processes. Prerequisites: GLY 5246, CHM 3400 or Permission of the instructor. (S in alternate years)

GLY 6862 Numerical Methods in the Earth Sciences (3). Numerical techniques used by geoscientists, with emphasis on finite-difference and finite-element techniques to solve equations governing fluid flow and mass transport in geological systems. Prerequisites: MAP 3302, GLY 5827 and knowledge of one programming language or Permission of the instructor.

GLY 6896 Advanced Topics in Hydrology (1-3). Research-oriented seminar course involving analysis of several contemporary topics chosen from the current literature in hydrology. Specific topics vary. May be repeated. Prerequisites: GLY 5827 and one other graduate level hydrology/hydrogeology course, or Permission of the instructor. (S in alternate years)

GLY 6910 Supervised Research (1-12). Research apprenticeship under the direction of a professor or a thesis advisor. Prerequisites: Full graduate admission and permission of the instructor.

GLY 6931 Advanced Graduate Seminar (1). Oral presentation and discussion by students of an assigned literature survey, with reports by members of the seminar. Prerequisite: GLY 5931 or permission of the instructor. (F,S)

GLY 6941 Supervised Teaching in the Geosciences (1). Teaching a geological discipline under the supervision of departmental faculty. Prerequisite: Graduate standing.

GLY 6945 Proposal Writing (1). A graduate course aimed at introducing students to grant proposal writing.

GLY 6949 Professional Internship in Earth Science (1-3). Semester or summer term of supervised work at an

approved government or industry laboratory or field station. Prerequisite: Graduate standing.

GLY 6966 Master's Comprehensive Examination (0). Oral and written examinations on knowledge in general geology and the student's field of concentration. Schedule to be selected in consultation with the Graduate Committee. Prerequisite: Advanced graduate standing. (F,S,SS)

GLY 6971 Master's Thesis (1-12). Field and/or laboratory research project toward thesis. Selected in consultation with major professor. Prerequisite: Permission of major professor. (F,S,SS)

GLY 7980 Dissertation (1-12). Field and/or laboratory research directed towards completion of the doctoral dissertation. Selected in consultation with major professor. Prerequisite: Permission of major professor. (F,S,SS)

OCG 6105 Advanced Marine Geology (3). **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 the Deep-Sea Drilling Project, dredging, piston-coring, gravity magnetism, and seismicity. Special emphasis will be given to the genesis and evolution of the Atlantic and Caribbean margins, and their potential for oil resources. Prerequisite: GLY 4730 or Permission of the instructor. (F in alternate years)

OCG 6664 Paleooceanography (3). Mesozoic/Cenozoic development of the major ocean basins, their circulation and sedimentation history. Use of micropaleontologic and stable isotopic techniques in paleoceanographic analysis. Prerequisite: GLY 4730 or Permission of the instructor. (F in alternate years)

Economics

Panagis Liossatos, Professor and Chairperson

Nejat M. Anbarci, Associate Professor

Harvey Averch, Professor, Courtesy Appointment, College of Public and Urban Affairs

Mahadev Bhat, Assistant Professor (joint appointment with Environmental Studies)

John H. Boyd III, Associate Professor

Manuel J. Carvajal, Professor

Richard A. Chisik, Assistant Professor

Russell Chuderewicz, Visiting Lecturer

Frederico Ciliberto, Assistant Professor

Irma de Alonso, Professor

Alan Gummerson, Lecturer

Antonio Jorge, Professor of Political Economy, (joint appointment with International Relations)

Ali Cem Karayalcin, Associate Professor

Robert J. Lemke, Assistant Professor

J. Kenneth Lipner, Associate Professor

Devashish Mitra, Assistant Professor

Santanu Roy, Associate Professor

Jorge Salazar-Carrillo, Professor and Director, Center for Economic Research and Education

Constantinos Syropoulos, Associate Professor

Dimitrios Thomakos, Assistant Professor

Tao Wang, Assistant Professor

Mira Wilkins, Professor

Maria Willumsen, Associate Professor

The graduate programs in Economics place a strong emphasis on combining fields such as international economics, political economy, development economics (including Latin America and Caribbean studies as well as regional development problems), and urban/labor/public economics using state-of-the-art tools such as econometrics, game theory, dynamic methods, and information economics. The Department of Economics has a fast growing, diverse group of faculty who are interested in both applied and theoretical issues. While these are the department's areas of greatest emphasis, graduate course work in other fields can also be undertaken. The department's programs are further enhanced by the presence of complementary graduate programs in the College of Arts and Sciences, College of Business

Administration, and the College of Urban and Public Affairs.

Master of Arts in Economics

To be admitted into the Master's degree program in Economics, a student must meet the University's graduate admission requirements and:

1. Have a Bachelor's Degree from an accredited institution.

2. Have a 'B' average (3.0) or higher during the last two years of undergraduate studies, or a minimum combined score (verbal + quantitative) of 1,000 or higher on the Graduate Record Examination (GRE), which every candidate must take. Foreign students whose native language is not English must take the TOEFL and obtain a minimum score of 550.

3. Receive approval of the departmental graduate committee.

4. Have taken as prerequisites statistics, and calculus. A student who has not fulfilled all these prerequisites may be admitted on a provisional basis. Unless specifically exempted, the student must take these courses as required, obtaining no credit for them in the program.

Master's Tracks

The Department of Economics offers two tracks: A general economics track, and a track specializing in applied economics. Although the general requirements are the same for both tracks, students opting to follow the applied economics track *must* write a Master's Thesis, take a fourth core course, and include four of the applied track courses listed below among their electives. The applied track courses are also open to students following the general economics track.

Degree Requirements

The Master's degree program will consist of 30 semester hours of course work, at a graduate level (course numbers 5000 or above). A maximum of six semester hours may be transferred into the program subject to the approval of the graduate committee. All courses listed below carry 3 credits, except the thesis (6 credits). The specific requirements are:

Core Courses

All Master's students must take the following three courses

ECO 6115	Fundamentals of Graduate Microeconomics	3
ECO 6204	Fundamentals of Graduate Macroeconomics	3

ECO 7424 Econometric Methods I 3

Research Requirements: (3-6 credits) Students following the general economics track must either write a thesis for 6 credits (ECO 6971), or take an advanced course in applied economics (7000-level or approved by the Graduate Director) which involves writing a research paper (3 credits). Students taking the applied economics track must write a thesis for 6 credits (ECO 6971).

Electives:

 (15-18 credits)

A student must take at least four electives in economics. The additional one or two courses required to complete the Master's program may be taken in Mathematics, International Studies, the College of Business Administration, the College of Urban and Public Affairs or in the other college or schools of the University. The graduate director must approve courses taken outside the department. ECP 6705 and ECP 6715 do not count as electives.

Additional Applied Track Courses

An M.A. student wishing to follow the applied economics track will be required to take, in addition to the three core courses above, a fourth core course:

ECO 6416 Applied Quantitative Methods in Economics 3

Applied track students must choose their remaining four electives from the following courses:

ECP 6305	Advanced Environmental Economics	3
ECO 5207	Economics of Emerging Nations	3
ECP 5704	International Economic Problems and Policy	3
ECO 6225	Economics of Asset Markets	3
ECO 7236	Money, Banking and Monetary Policy	3

Graduation Requirements

To receive the Master's degree in Economics, the student must complete 30 hours of course work with a 'B' (3.0) average or higher; must receive a least a 'B' (3.0) in the core courses; and must receive a grade of 'C' or higher in each course. If the student decides to write a thesis, he/she must receive the grade of 'P'(pass) for ECO 6971.

Doctor of Philosophy in Economics

The admission requirements to the Ph.D. program in Economics are:

1. Have a Bachelor's Degree from an accredited institution.

2. A minimum GPA of 3.0 for the last two years of undergraduate education or a minimum combined score (verbal + quantitative) of 1000 on the Graduate Record Examination (GRE), which every candidate must take. Foreign students whose native language is not English must take the TOEFL and obtain a minimum score of 550.

3. Three letters of recommendation, using the form provided by the Department, from people in a position to judge the applicant's suitability for graduate studies in economics.

4. Receive approval of the departmental graduate committee.

5. Completion of the following courses at the undergraduate level: statistics, two semesters of calculus, and a semester of linear algebra. Unless exempted, the student must take these courses as required, obtaining no graduate credit for them in the program.

The GRE and GPA stated above are minimum requirements. All applications are reviewed by the Graduate Studies Committee, which makes the final admission decisions. Since admission to the program is competitive, the committee's requirements are normally higher than the minimum standards. Meeting the minimum requirements does not guarantee admission.

Degree Requirements

To obtain the Ph.D. in Economics, students must complete the required course work and fulfill dissertation requirements.

Course work Requirements

Students must complete 48 hours (16 courses) of graduate level course work. Supervised research, independent study, seminars, and dissertation credit do not count towards this objective.

This required minimum of 16 courses consists of ten courses in the Core, four courses in two Fields of Specialization (at least two courses per field, some fields may have special requirements), and two electives as approved by the student's advisor (normally either the Graduate Director or the student's dissertation advisor).

No credit toward a graduate degree is given for any course in which a grade of 'C' or less is obtained. A graduate student who receives a grade lower than 'B-' in a course must retake that course; if a retake also results in a grade lower than 'B-', the student will not be permitted to continue in the Ph.D. Program. A graduate student who receives a grade lower than 'B-' in more

than two courses will not be allowed to stay in the Economics Ph.D. Program.

Students are required to maintain a minimum GPA of 3.0 (of 4) in their coursework.

Core Courses

ECO 6115	Fundamentals of Graduate Microeconomics	3
ECO 7115	Microeconomic Theory I	3
ECO 7116	Microeconomic Theory II	3
ECO 6204	Fundamentals of Graduate Macroeconomics	3
ECO 7206	Macroeconomic Theory I	3
ECO 7207	Macroeconomic Theory II	3
ECO 7405	Mathematical Methods in Economic Analysis	3
ECO 7424	Econometric Methods I	3
ECO 7425	Econometric Methods II	3
ECO 7305	History of Economic Thought	3

Core Study

During the first three semesters, students are required to take courses which include the first nine core courses listed above. Following the third semester, students are required to pass a comprehensive qualifying examination on core theory—the first six core courses listed above. A student who fails twice will not be allowed to remain in the program. A student must receive at least a 'B' (3.0) average in the first seven courses in order to participate in the comprehensive core theory qualifying examination.

Field Study

During the fourth and fifth semesters, students will complete course work in two Fields of Specialization. Students must pass the field examination in one of the major fields at the end of the fifth semester. In the other field, students must write a field paper. The field paper must be completed, presented in a workshop, and accepted by the student's field paper committee by the end of the third year. Students who fail twice any of their field requirements will not be allowed to continue in that field. History of Economic Thought should also be completed by the end of the third year.

Dissertation Work

Upon completion of field examination requirements, students will be required to choose a specific area of doctoral research. During this phase, which will

normally have a total length of two years, the student will:

a. Conduct research and complete a dissertation

b. Continue taking courses to complete a minimum of 12 credits of Advanced Workshop and 18 credits of dissertation.

c. Attend Advanced Workshops by enrolling in ECO 7925 in the dissertation area and present at least one paper a year on the work in that workshop.

Students will normally be required to be enrolled as full-time students at the University for at least a year during the dissertation period. Except under abnormal circumstances, the maximum number of years during which a student may do dissertation work is five years.

Graduation Requirements

To graduate, students must complete all course requirements; fulfill workshop presentation requirements, pass the comprehensive and field examinations, and complete the oral defense and acceptance of the Ph.D. dissertation.

Course Descriptions

Definition of Prefixes

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

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ECO 5709 The World Economy (3). 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 MIB Program. (S)

ECO 5735 Multinational Corporations (3). Economic theory and multinational corporations. Economic effects. Consequences of nationalization. Spread of the multinational form. State-owned multinational corporations. Prerequisite: Permission of the instructor for undergraduates. (S)

ECO 5906 Advanced Individual Study (1-6). Supervised readings, individual tutorial, and preparation of report. Requires consent of faculty supervisor and Department Chair-person. Open to seniors and graduate students.

ECO 5945 Internship (3). Directed individual study which assists the student in using economic analysis in his

employment. Prerequisite: Permission of the chair.

ECO 6076 Teaching Economics (1). This course, required of all graduate assistants, is designed to introduce students to the pedagogical and practical aspects of teaching economics. It is coordinated with the Academy for the Art of Teaching.

ECO 6115 Fundamentals of Graduate Microeconomics (3). Consumer choice and theory of firm using calculus and diagrams with standard applications; Introduction to choice under uncertainty; Introduction Game Theory (nash Equilibrium); Partial Equilibrium; Market Structures: Perfect Competition, Monopoly and Oligopoly; Market failures. Prerequisites: One semester of Calculus and Statistics.

ECO 6204 Fundamentals of Graduate Macroeconomics (3). Consumption, investment and growth; equity premium puzzle; taxation and social security; monetary policy rules, currency and inflation; the IS-LM model; real business cycles and models with nominal rigidities. Prerequisites: Calculus and Statistics.

ECO 6225 Economics of Asset Markets (3). Economic analysis of the asset markets; risk, return and intertemporal choice; mean variance analysis; asset pricing models and properties of asset returns; market efficiency and market anomalies. Prerequisites: Calculus or permission of the instructor.

ECO 6416 Applied Quantitative Methods in Economics (3). Types of economic data; the WWW as a tool for data collection; database construction and maintenance; use of statistical software for graphical and descriptive methods; large sample inference for one population mean vector; introduction to economic time series and regression models. Prerequisites: One semester of Calculus and Statistics or permission of the instructor.

ECO 6936 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 6938 Individual Graduate Study (6-9). Supervised readings, tutorial, and preparation of report. Open only to graduate students. Requires consent of supervisor and approval of Department Chairperson.

ECO 6939 Advanced Seminar in Applied Economics (3). Variable-topic

study group in application of economic analysis to specific problems. Open to seniors and graduate students. (S)

ECO 6971 Thesis (6). Writing and completion of thesis by candidate for a Master of Arts. Prerequisites: Student must be a Master's degree candidate, have had at least 15 hours of graduate work in economics; have a thesis topic approved by the Department's Graduate Committee and permission from the instructor.

ECO 7115 Microeconomic Theory I (3). Models of consumer and producer behavior, partial equilibrium analysis of product and factor markets, two-sector models of general equilibrium and welfare economics. Prerequisites: ECO 3101 or equivalent, Calculus I; Calculus II recommended. (F)

ECO 7116 Microeconomic Theory II (3). The Hicks/Samuelson and Arrow/Debreu models of general equilibrium. Activity analysis and competitive equilibrium. Capital theory. Leontief/Sraffa/Marx Systems. Temporary equilibrium and money. Prerequisites: ECO 7115 and ECO 7405. (S)

ECO 7118 Graduate Seminar in Economic Theory (3). Variable-topic graduate study group in theoretical problems. Open only to students with graduate standing.

ECO 7135 Growth, Distribution and Prices (3). Alternative theories of growth, income distribution and prices. Basic growth models; neoclassical capital theory and Cambridge controversies; neo-Marxian, neo/Keynesian and other approaches. Prerequisites: ECO 7116, ECO 7207, ECO 7405.

ECO 7136 Classical and Marxian Economic Theory (3). Classical and Marxian theories of value and capital in a mathematical mode. The Transformation Problem. Simple and expanded reproduction. The falling rate of profit and other Marxian crises. Prerequisites: ECO 7115, ECO 7206, ECO 7405, ECO 7116.

ECO 7206 Macroeconomic Theory I (3). Analysis of macroeconomic models of income determination and the price level, microeconomic foundations of macro-behavior, macroeconomic models, and basic open economy macroeconomics. Prerequisites: ECO 3203, ECO 4410, or equivalents; Calculus I; Calculus II recommended. (F)

ECO 7207 Macroeconomic Theory II (3). Alternative approaches to macroeconomic theory. Business cycle theories and theories of growth and income distribution. Prerequisites: ECO 7115, ECO 7206, ECO 7405.

ECO 7216 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 7236 Money, Banking, and Monetary Policy (3). 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 7305 History of Economic Thought (3). Exploration of the evolution of economic thought and analysis in the changing socio/historical, institutional and political setting in which it takes place. Prerequisite: Permission of the instructor. (S)

ECO 7405 Mathematical Methods in Economic Analysis (3). Application of mathematical methods to economics. The topics and tools of mathematical economics are presented in a rigorous fashion within an economic context. Prerequisites: Calculus I, ECO 3101 and ECO 3203, or equivalents. (F)

ECO 7424 Econometric Methods I (3). Practical and theoretical foundations of empirical economics. Knowledge in formulation, estimation, and evaluation of econometric models. Prerequisites: ECO 4410 or equivalent; ECO 7423, Calculus I; Calculus II recommended. (S)

ECO 7425 Econometric Methods II (3). A continuation of ECO 7424. Advanced single equation estimation, estimation of distributed lags, simultaneous equations, time series and models of qualitative choice. Prerequisites: ECO 7424 and MAS 3103 or equivalent. (F)

ECO 7429 Topics in Econometrics (3) Selected topics in econometrics. Intended to acquaint students with current research in the field. Material covered will vary from year to year with instructor. Prerequisites: ECO 7424 and ECO 7425.

ECO 7505 Public Finance (3). Partial and general equilibrium analysis of tax incidence efficiency, public goods,

public pricing problems, the social rate of discount, and non-market decision making.

ECO 7617 Seminar in Economic History (3). Topics in economic history, exploration of the economic history literature on a selected theme, student presentations. Prerequisite: Permission of the instructor for under-graduates.

ECO 7705 International Trade (3). Positive and normative aspects of international trade. Theories of comparative advantage, commercial policy, trade and income distribution. Prerequisites: Advanced Microeconomic Theory; Calculus. (F)

ECO 7716 International Money (3). Theory of international monetary equilibrium. Problems of international payments and exchange rate control; their effect on international monetary problems. Analysis of short and long term monetary flows and macroeconomic adjustment. Prerequisites: Advanced Macroeconomics and Calculus. (S)

ECO 7925 Advanced Workshop (3). Enables students to attend advanced workshop presentations and to present the results of their own research. Prerequisite: Completion of field examination requirements. (F,S)

ECO 7980 Dissertation (Ph.D.) (3-12). To be taken every semester for research on, and writing of Ph.D. dissertation by candidates for the Ph.D. Prerequisite: Completion of field examination requirements.

ECP 5707 International Economic Problems & Policy (3). International trade and comparative advantage; commercial policy; foreign exchange markets; balance of payments; issues in trade & development. Prerequisite: ECO 2013 or ECO 3011, and ECO 2023 or ECO 3021.

ECP 6305 Advanced Environmental Economics (3). Economics of environmental pollution; theories of exhaustible and renewable resource extraction; issues in environmental valuation and policies. Prerequisite: ECP 3101 and ECP 3302 or ECP 4314 or Permission of the instructor.

ECP 6434 Macroeconomic Forecasting for Management (3). Basic macroeconomics concepts as they apply to decision making within the firm. Traditional models of income determination and forecasting analysis. Prerequisite: ECP 6705. (F,S,SS)

ECP 6605 Urban and Regional Analysis (3). 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, ECO 3203 and ECP 3303.

ECP 6705 Managerial Economics (3). Basic microeconomic concepts as they apply to decision making within the organization; supply and demand; market structure and market behavior in specific industries. Prerequisites: ECO 3021 and ECO 3011. (F,S,SS)

ECP 7035 Cost-Benefit Analysis (3). This course covers benefit-cost analysis, cost-effectiveness analysis, benefit-risk analysis, risk-risk analysis, and systems analysis. All of these techniques are designed to provide guidance to decision makers, particularly in the government sector. Prerequisite: ECO 3101.

ECP 7205 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 7405 Industrial Organization (3). 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 7606 Urban and Regional Economics (3). The economics of urbanization processes, internal organization of cities, and regional settlement. Spatial growth models and spatial development planning. Prerequisites: ECO 7115, ECO 5205, ECS 4013 or equivalent; and ECO 6636. (F)

ECP 7636 Location Theory (3). Systematic exposition of urban and industrial location theory. Spatial price theory and spatial competition. Prerequisites: ECO 3101 or equivalent; Calculus I; Calculus II and ECO 7115 recommended. (S)

ECP 7706 Managerial Economics (3). Analysis of the economic decisions of firm managers, emphasizing the practical application of concepts to economic problem solving by managers, public administrators and other decision

makers. Prerequisites: Ph.D. or advanced Masters.

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

ECS 5025 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 practice of economic development planning of agriculture, industrialization, foreign trade, and manpower. Prerequisite: Graduate standing or permission of the instructor.

ECS 5027 Economic Development of Emerging Nations (3). 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. (F)

ECS 6436 The Economics of Caribbean Migration (3). The course examines the economic causes and consequences of Caribbean immigration to the United States. Special emphasis on the effects of Caribbean migration on the United States economy.

ECS 7015 Development Economics: Theory (3). Analytical approaches to economic development. Analysis of macro models, specific resources and sectors, and trade and income distributional problems in relation to developing countries. Prerequisites: ECO 7115 and ECO 7116 or equivalents. (F)

ECS 7026 Development Economics: Planning and Policy (3). Planning and policy making in developing economies. Economy-wide planning models; project appraisal; financial, stabilization and trade policies. Prerequisites: ECO 7115, ECO 7116, and ECO 7405. (S)

ECS 7405 Economics of Latin America (3). Dependence, population explosion, urban migration, agri-cultural reform, industrialization and import substitution, common markets. Prerequisite: Permission of the instructor for undergraduates.

ECS 7435 Economics of the Caribbean (3). Macroeconomic assessment; income distribution, employment and migration; industrial and agricultural

development; international trade, multinational and integration attempts. Prerequisite: Permission of the instructor.

ECS 7445 Economics of Central America (3). Recent economic events in the region dealing with institutional background and structure of current economic activities. Special emphasis on problems of growth, social transformation and economic integration. Prerequisite: Permission of the instructor. (F)

English

Donald Watson, *Professor and Chairperson*

St. George Tucker Arnold, *Associate Professor*

Joan L. Baker, *Associate Professor and Director of the Master of Arts in English Program*

Lynne Barrett, *Associate Professor*

Lynn M. Berk, *Professor and Director of the Linguistics Program*

Lisa Blansett, *Assistant Professor*

Greg Bowe, *Assistant Professor and Director of Undergraduate Writing*

Gisela Casines, *Associate Professor and Associate Dean*

Maneck Daruwala, *Associate Professor*

Carole Boyce Davies, *Professor*

Ann Donadey, *Associate Professor*

John Dufresne, *Professor*

Peggy Endel, *Associate Professor*

Mary Free, *Associate Professor and Associate Chairperson*

James Hall, *Professor*

Kimberly Harrison, *Assistant Professor*

Bruce Harvey, *Associate Professor*

Marilyn Hoder-Salmon, *Associate Professor*

Tometro Hopkins, *Associate Professor*

Kenneth Johnson, *Associate Professor*

Alfred Lopez, *Assistant Professor*

Kathleen McCormack, *Associate Professor*

Campbell McGrath, *Associate Professor*

Carmela Pinto McIntire, *Associate Professor*

Phil Marcus, *Professor*

Asher Z. Milbauer, *Associate Professor*

Meri-Jane Rochelson, *Associate Professor*

Richard Schwartz, *Professor*

Kate Capshaw-Smith, *Assistant Professor*

Lester Standiford, *Professor and Director of Creative Writing Program*

Linda Strong-Leek, *Assistant Professor*

Richard Sugg, *Professor*

James Sutton, *Assistant Professor*

Dan Wakefield, *Writer in Residence*

Butler H. Waugh, *Professor*

Mehmet Yavas, *Professor*

The English Department offers three graduate degree programs: Creative Writing, Linguistics and Literature. The descriptions of the Creative Writing and the Linguistics programs can be found under their respective headings in this catalog.

Master of Arts in English

To be admitted into the Master's program in English, a student must meet the University's graduate admission requirements and have:

1. A bachelor's degree in English or a related field;
2. A minimum 3.0 undergraduate grade point average;
3. A combination of 1000 (verbal and quantitative) on the GRE;
4. Two letters of recommendation from undergraduate or graduate professors;
5. A personal essay;
6. Those who might be chosen for teaching assistantships will be interviewed by at least one member of the committee.

Degree Requirements

The Master's degree program consists of 30 semester hours of course work at a graduate level (course numbers 5000 or above) and a thesis (6 credits). A maximum of six semester hours may be transferred into the program subject to the approval of the graduate committee.

Required Courses

ENG 5048	Literary Theory	3
LIT 5405	Literature, Language and Society	3

Electives: A maximum of 24 semester hours (5000 or 6000) level may be taken at either campus.

Thesis: LIT 6970 Master's Thesis 6

The student must complete a research thesis. The topic must be approved by the faculty member who will supervise the research and 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.

Below is a list of graduate courses that are offered by the English Department in addition to those offered in the Creative Writing and Linguistics programs.

Course Descriptions

Definition of Prefixes

AML - American Literature; CRW - Creative Writing; ENG-English-General; ENL-English Literature; LIN - Linguistics; LIT-Literature.

AML 5305 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. May be repeated.

AML 5505 Periods in American Literature (3). The literature and criticism regarding one specified period of American Literature, such as Colonial, Federal, Transcendental, Antebellum, and Twentieth Century. May be repeated with change of period.

ENG 5009 Literary Criticism and Scholarship (3). Techniques and goals of humanistic research, bibliography, and critical commentary.

ENG 5018 Practical Criticism (3). Applies various critical theories - e.g. the formalistic, historical, structural, archetypal, sociological, etc. - to specific literary productions.

ENG 5026 Advanced Textual Reading (3). The study of selected texts for interpretation from different critical and theoretical perspectives. May be repeated. Prerequisite: Admission to the graduate program in English or by Permission of the instructor.

ENG 5048 Literary Theory (3). An introduction to issues in the nature of literature, the philosophy of criticism, and methods of interpretation. The theoretical foundations for literary study. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

ENG 5058 Form and Theory of Contemporary Literature (3). Various approaches and theories of practice in the major genres of imaginative writing, including development and articulation of the creative esthetic. May be repeated. Prerequisite: Permission of the instructor.

ENG 5907 Independent Study (VAR). Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chairperson.

ENG 5971 Thesis and Dissertation Workshop (3). A workshop providing practice in the type of writing, research, and analytical skills required for successful graduate study. Prerequisite: Graduate standing.

ENG 5XXX Special Project in English (1-3). Pursuit of projects involving relationship of profession to university and/or community and/or research issues in pedagogy, literature, or other areas. Prerequisites: Consent of Graduate Director or Department Chair. Corequisite: Consent of project supervisor.

ENG 6909 Independent Study (VAR). Individual conferences, as-

signed readings, reports on independent investigations, with the consent of the Chairperson.

ENG 6935 Special Topics in College Pedagogy (3). The pedagogy of teaching a designated area of college and university English, such as Shakespeare, American literature, film studies, creative writing, or linguistics. Course content and organization to be determined by the individual professor. Course does not meet certification requirements.

ENG 6937 Teaching College Composition (3). A seminar-workshop introducing the pedagogy of academic and professional writing courses at the university and college level, to include traditional rhetoric, writing as process, the modes of discourse, and post-structuralist theory. Course does not meet certification requirements. Prerequisite: Graduate standing. Corequisite: College composition practicum.

ENG 6942 College Composition Practicum (1). Practical experience in the teaching of English at the university and college level through supervised activities to include tutorials, evaluating, and commenting on student essays, supervised classroom discussion and teaching. Course does not meet certification requirements.

ENL 5220 Major British Literary Figures (3). Each section will consider the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated.

ENL 5505 Periods in English Literature (3). The literature and criticism regarding one specified period of English Literature, such as Medieval, Renaissance, Victorian, Twentieth Century, and Contemporary. May be repeated with change of period.

LIN 5019 Metaphor, Language, and Literature (3). Examines nature of metaphor as a cognitive phenomenon; how we use metaphor to conceptualize basic physical and cultural notions; role of cognitive metaphor in literature. Prerequisites: LIN 3013 or LIN 5018.

LIN 5211 Applied Phonetics (3). Study of sounds and suprasegmentals of English. Comparison of phonetic features of English with those of other languages. Universal constraints and markedness in learning second/foreign language pronunciation. Prerequisites:

LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIT 5363 Literary Movements (3). Individual sections will study the authors, works, and audiences involved in such phenomena as Humanism, Mannerism, Romanticism, Symbolism, the Harlem Renaissance, and others. May be repeated.

LIT 5405 Literature, Society, and Language (3). This seminar explores language's relationship to social formation, specifically as it applies to the relationship between literature and social groups and institutions. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

LIT 5426 Authors in their Times (3). A focus on one or more designated authors and the biographical, political and historical context in which they wrote, using current critical and historical approaches. May be repeated. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

LIT 5486 Literature: Continuity and Change (3). Explores the development of a particular literary genre, ideological concept, or cultural tradition over a broad period of time. May be repeated. Prerequisites: Admission to the graduate program in English or by Permission of the instructor.

LIT 5487 Texts and Culture (3). The study of the relationship between specified texts and an historically, socially, or conceptually defined culture, such as Vietnam War Narratives, Jewish Literature, or Postmodernism. May be repeated. Prerequisites: Admission to the graduate program in English or by Permission of the instructor.

LIT 5934 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

LIT 5XXX African Diaspora Women Writers (3). Study of black women writers from throughout the Diaspora from the early 19th century to present. Prerequisites: Graduate standing.

LIT 5XXX Black Literature and Literary/Cultural Theory (3). Examines 20C. black literary critical thought. Students interrogate cultural theories and literary texts from African, Caribbean, African-American, Black British and Afro-Brazilian

communities. Prerequisites: Graduate standing.

LIT 6934 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

LIT 6935 Master's Colloquium (3). Individual sections study a specific literary topic, selected and presented jointly by several faculty members. May be repeated. Prerequisites: Admission to the graduate program in English or by permission of the instructor.

LIT 6970 Master's Thesis (1-6). A thesis is required of all graduate students of English, to be written in the final semester. Done under the supervision of a faculty member. Prerequisites: Admission to the graduate program in English and by permission of the supervising faculty.

Environmental Studies

David Bray, *Associate Professor and
Chairperson*

Bradley Bennett, *Associate Professor*

Mahadev Bhat, *Associate Professor*

Alice Clarke, *Assistant Professor*

Constantine Hadjilambros,

Associate Professor

Krishnaswamy Jayachandran,

Assistant Professor

Joel Heinen, *Associate Professor*

Stephen P. Leatherman, *Professor*

(International Hurricane Center)

Michael McClain, *Assistant Professor*

Jack Meeder, *Research Scientist*

(Southeast Environmental Research

Center)

John Parker, *Professor*

Tom Pliske, *Instructor*

Gary Rand, *Associate Professor*

Mike Ross, *Research Scientist*

(Southeast Environmental Research

Center)

Keqi Zhang, *Research Scientist*

International Hurricane

Center

Affiliated Faculty

Jerry Brown, *Sociology/Anthropology*

Janet Chernela,

Sociology/Anthropology

Jim Fourqurean, *Biological Sciences*

Piero R. Gardinali, *Chemistry*

David Genevex, *Geology*

Joel Gottlieb, *Political Science*

Kevin Hill, *Political Science*

James Huchingson, *Religious Studies*

Rudolf Jaffe, *Chemistry*

Jeff Joens, *Chemistry*

Ronald Jones, *Biological Sciences*

Suzanne Koptur, *Biological Sciences*

Rod Neumann, *International*

Relations

Steve Oberbauer, *Biological Sciences*

George O'Brien, *Education*

Betsy Smith, *Social Work*

Berrin Tansel, *Civil and*

Environmental Engineering

Joel Trexler, *Biological Sciences*

Bill Vickers, *Sociology/Anthropology*

Master of Science in Environmental Studies

The Environmental Studies Department offers the Master of Science (M.S.) in Environmental Studies degree to train students for work in the areas of environmental policy, natural resource science and management, and sustainable development, with particular focus on the South Florida region, the Caribbean Basin, and Latin America. An emphasis of the program is the cultural and political milieu in which environmental issues of the

region are embedded. The program is interdisciplinary in nature, and students will be encouraged to take advantage of University-wide resources, programs, and courses in environmental issues, such as those in Public Administration, International Relations, Biology, Chemistry, Earth Sciences, Political Science, Economics, and Sociology/Anthropology.

The M.S. degree program offers two options: thesis track and non-thesis track. The thesis track involves rigorous, solutions-oriented scientific research into the functioning of environmental systems. This track is highly recommended for students who are coming directly from undergraduate programs and who are interested in doctoral research in the future. The non-thesis track is primarily designed for employed professionals who may want to enhance their careers and skills through additional academic training beyond their bachelor's degree and practical training through internships with agencies, corporations, non-profit organizations or academic institutions. It is not recommended for students who do not have job experience.

Admission Requirement

To be admitted into the master's program in Environmental Studies, a student must meet the University's graduate admission requirements and:

1. Have a "B" average in upper level work, or a combined score of 1000 (quantitative and verbal) on the GRE, which every candidate must take, or graduate degree from an accredited institution. Foreign students whose native language is not English must take TOEFL and score a minimum of 550.

2. Have submitted three letters of recommendation, a one-page statement of research interests, a copy of all transcripts, and a copy of the university graduate application to the Graduate Program Director on or before March 1 for the Fall admissions and October 1 for the Spring admissions.

3. Have received approval of the departmental graduate program committee.

Degree Requirements

The Master of Science in Environmental Studies requires 36 credits, including the specific requirements (listed below) of either thesis track or non-thesis track option of the degree program. A maximum of six credits of post-baccalaureate graduate course work may be

transferred from other institutions, subject to approval of the graduate committee. Particular courses will be determined by the student in consultation with the thesis advisory committee, faculty advisor, or the Graduate Program Director.

Thesis Track: Course Requirements

EVR 5320	Environmental Resource Management	3
EVR 5355	Environmental Resource Policy	3
EVR 6950	Graduate Seminar	3
EVR 6971	Master's Thesis	6
	Research Methods or Analysis Course Electives	3 18

Total Credits

36
The research methods course and electives are selected in consultation with student's thesis advisor. Elective courses are chosen in one of the three graduate concentrations (see below) and fit the student's thesis Research. Additional thesis or research credit, above the 6-credit minimum, may also be applied as elective credit. A maximum of six credit hours may be taken at the 4000 level, and a minimum of six credit hours must be taken in Environmental Studies. Students must demonstrate a competency in Statistics (equivalent to two courses of undergraduate statistics, taken prior to the admission into the program, with a "B" or better grade in both courses, or two courses of graduate statistics with a "C" or better grade in both courses). Additional course work may be recommended by the advisory committee. A maximum of 5 credit hours of independent study credit (EVR 5907 Graduate Independent Study) may be applied toward graduation.

Thesis Track: Graduation Requirements

A grade of 'B' or higher must be obtained in all core courses. A grade of 'C' or higher must be obtained in all courses, with a cumulative GPA of 3.0 or higher in the 36 credits. Students must pass a comprehensive oral and/or written qualifying examination. The format of the examination will be decided by the thesis advisor and the committee. A thesis must be completed and defended in consultation with the student's graduate thesis committee.

Non-Thesis Track: Course Requirements

EVR 5320	Environmental Resource Management	3
EVR 5355	Environmental Resource Policy	3
EVR 5907	Research and Independent Study	3
EVR 6950	Graduate Seminar	3
	Quantitative Methods Course	3
	Electives	21

Total Credits 36

The quantitative methods course and electives are selected in consultation with faculty advisor. Elective courses are chosen in one of the three graduate concentrations (see below), and to fit the student's particular professional interest and to ensure sufficient breadth and depth of environmental studies knowledge. Students carrying out research, internship or independent study for their non-thesis project should sign up for EVR 5907, but may not exceed six credits total. EVR 6970 and EVR 6971 will *not* count toward electives. A maximum of six credit hours may be taken at the 4000 level. A minimum of twelve elective credits must be taken in Environmental Studies. All courses except EVR 6950 must be taken for letter grades.

Non-Thesis Track: Graduation Requirements

A grade of "B" or higher must be obtained in all core courses. A grade of "C" or higher must be obtained in other courses, with a cumulative GPA of 3.0 or higher in the 36 credits. A project (EVR 5907) must be completed under faculty supervision, and the project report must be presented as a part of the Graduate Seminar class. This work may be based on a specific field research, internship of current occupation. A project is defined as a substantial analysis and proposal for change of real-world environmental problem.

Graduate Concentrations for the Master of Science in Environmental Studies

The Department of Environmental Studies currently offers graduate-level concentrations in three different areas. These are 1) energy management, and 2) biological management, and 3) pollution management. A list of electives for each of these concentrations can be obtained from the Department's Office.

Course Descriptions

Definition of Prefixes

EVR-Environmental Studies.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

EVR 5061 South Florida Ecology: Field Studies (3). Introduction to ecology of South Florida. Series of field trips to unique ecosystems (Everglades, hardwood hammocks, coastal regions). No science background required. Intended for teachers. Not intended for Environmental Studies graduate students.

EVR 5065 Ecology of Costa Rican Rainforest (3). Intensive study of Central American tropical forest ecosystems conducted for two weeks in Costa Rica in sites ranging from lowland to high mountains. Primarily for teachers. Prerequisites: Graduate standing or Permission of the instructor. (SS)

EVR 5066 Ecology of the Amazon Flooded Forest (3). Study of the ecology of the flooded forest with emphasis on the relationships between plants and animals and the annual flooding cycle. The course includes a two-week field study at river camp in Peru. Prerequisites: Graduate standing or Permission of the instructor. (SS)

EVR 5067 Tropical Forest Conservation and Utilization (3). Distribution and classification of tropical forest ecosystems, their description and the ecological principles governing their function. Factors influencing tropical forest utilization and destruction, and strategies for sustainable use and conservation. Prerequisites: EVR 5355 or Permission of the instructor.

EVR 5236 Air Pollution Dynamics (3). 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 5300 Topics in Urban Ecology (3). Topics include urban and suburban ecosystems emphasizing energy relations, ecological functions of urban landscapes, urban wildlife, urban forestry and ecological issues relevant to human health and well-being. Prerequisites: PCB 3043 or Permission of the instructor.

EVR 5313 Renewable Energy Sources (3). An analysis of renewable energy sources and energy efficiency including wind, biomass, geothermal, hydroelectric, solid waste, solar heating, solar cooling, and solar electricity. Prerequisite: Permission of the instructor.

EVR 5315 Energy Resources and Systems Analysis (3). Detailed analysis of energy flows in natural and man-made systems. Energy systems analysis. Energy use patterns. Conventional and alternate sources of energy.

EVR 5320 Environmental Resource Management (3). The scientific and philosophical basis for the management of renewable and non-renewable energy, mineral, air, water, and biotic resources. Prerequisite: Graduate standing or Permission of the instructor. (F)

EVR 5350 International Organizations & Environmental Politics (3). The role of international organizations in environmental politics and the process of their formation and change in response to environmental problems. Prerequisite: Graduate standing or permission of the instructor.

EVR 5353 International Energy Policy (3). Focuses on the distribution of global energy resources and related issues. A comparison of the energy policies of various countries serves as the basis for exploring alternative energy policy approaches. Prerequisites: EVR 5355 or Permission of the instructor.

EVR 5355 Environmental Resource Policy (3). A survey of international and national environmental policy and the legal, economic, and administrative dimensions of international accords and selected U.S. law. Prerequisites: EVR 5320 or Permission of the instructor. (S)

EVR 5360 Protected Area Management (3). Interdisciplinary examination of ecological, administrative, and socio-economic aspects of managing protected natural areas. Case studies from developed and developing nations.

EVR 5405 International Biological Conservation Accords (3). Survey of international biological conservation agreements. Topics include bilateral migratory wildlife agreements, the Berne Convention on Migratory Wildlife, CITES, Ramsar, the UNCED Biodiversity Treaty and the Statement of Principles on Forests. Prerequisites:

EVR 5355 or Permission of the instructor.

EVR 5406 U.S. Endangered Species Management (3). History and implementation of the U.S. Endangered Species Act. Topics include legal and administrative aspects, reauthorization, procedures for recovery planning and conflict resolution, and biological measures of success. Prerequisites: EVR 5355 or Permission of the instructor.

EVR 5410 The Human Population and Earth's Ecosystems (3). Explores the impact of the human population of Earth's ecosystems. Reviews current population data at global, regional, and local scales. Includes study of specific South Florida carrying capacity issues.

EVR 5907 Research and Independent Study (VAR). The student works with a professor on a research project. Variable credit.

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 5XXX Tropical Ecosystems Management (3). Analyzes the dimensions of tropical ecosystems management. Organizational and institutional dynamics of the management of tropical forests, agroecosystems, and coastal areas are covered. Prerequisites: Permission of Instructor.

EVR 6322 Methods of Sustainable Resource Management (3) A study of methods and policies for achieving a sustainable environment. Covers project appraisal, resource modeling and national accounts in the context of resource sustainability. Prerequisite: Graduate standing or permission of the instructor.

EVR 6329 Watershed Analysis and Management (3). An examination of the watershed approach to managing water and land resources. Integrating fundamental physical, chemical, and biological processes with human systems at the landscape scale using GIS.

EVR 6950 Graduate Seminar (1) A weekly seminar that features guest

speakers, student presentations, and discussions among graduate students and faculty. Environmental Studies graduate students are required to register during three semesters of their program. Prerequisite: Permission of the instructor.

EVR 6970 Thesis Research (1-12) Supervised research towards completion of Master's Thesis. Repeatable. Prerequisite: Permission of Major Professor.

EVR 6971 Master's Thesis (1-12) Completion of Master's Thesis. Repeatable. Prerequisite: Permission of Major Professor.

EVS 5145 Ecotoxicology (3). Fate of chemicals and their acute and chronic toxicological effects on aquatic and wildlife systems. Dose-response relationships, bioavailability, bioconcentration, microbial degradation, and biomonitoring. Prerequisite: One year of biology and one year of chemistry and CHM 2200 and lab or permission of the instructor.

EVS 5194 Applied Soil Biology (3). Examines biology of soil organisms and biologically-mediated chemical transformations occurring in soil ecosystems. Prerequisite: BSC 1011

EVS 5637 Ecological Risk Assessment (3). Evaluation of risks of foreign chemicals to aquatic and terrestrial systems. Concepts and methodology used in the hazard and risk assessment of toxic effluents, chemical/oil spills, and contaminated sediments. Prerequisite: One year of biology and one year of chemistry and CHM 2200 and lab or permission of the instructor.

Forensic Science

Jose R. Almirall, *Assistant Professor
and Graduate Program Director*

Kenneth Furton, *Associate Professor
and Director, IFRI*

Administered by the International Forensic Research Institute (IFRI) the Master of Science in Forensic Science is an interdisciplinary program designed to prepare students for careers in local, state and national forensic science laboratories. The program may also be suitable preparation for doctoral instruction in several disciplines.

Admission Requirements

To be admitted into the Master's degree program in Forensic Science, a student must:

1. Hold a Bachelor's degree in a relevant discipline from an accredited college or university.*
2. Have a 3.0 GPA in upper-level course work and a combined score (verbal and quantitative) of 1000 or higher on the Graduate Record Exam.
3. Two letters of recommendation of the student's academic potential.
4. Be accepted by a faculty sponsor.
5. Receive approval from the Graduate Committee.
6. Foreign students whose native language is not English must take the TOEFL (Test of English as a Foreign Language) and obtain a score of 550 or higher.

*Minimum requirement is the equivalent of a bachelor's degree in biology, chemistry or related science approved by the graduate committee. It is recommended that students have the equivalent of a minor in chemistry before taking the required courses.

Degree Requirements

The Master of Science in Forensic Science consists of a minimum of 32 credits, including a thesis based upon the student's original research. A maximum of six credits of post-baccalaureate coursework may be transferred from other institutions, subject to the approval of the Graduate Committee. The graduate committee will consist of the Graduate Program Director and a member from each of the following departments: Chemistry, Biology, Criminal Justice and Psychology. The thesis committee shall consist of the research advisor (normally the faculty sponsor), and at least two additional committee members who have some expertise in the graduate student's research area.

Required Courses:

BSC 5406	Forensic Biology	3
CHS 5xxx	Forensic Chemistry	3
CHS 5531	Forensic Analysis	3

BSC 5931	Thesis Proposal	1
	or	
CHM 6935	Thesis Proposal	1
	or	
	approved cognate ¹	

BSC 5975	Thesis Defense Seminar	1
	or	
CHM 6971	Thesis Defense Seminar	1
	or	
	approved cognate ¹	

BSC 6971	Thesis	6
	or	
CHM 6970	Thesis	6
	or	
	approved cognate ¹	

Electives² 15

¹Equivalent courses in the student's area(s) of thesis concentration may be substituted upon approval by the thesis committee in consultation with the Graduate Program Director (i.e., CCJ, GLY, PHY, PSY). ²At least fifteen credits of additional graduate-level courses, workshops and laboratories (excluding research and seminar) from participating departments approved by the thesis committee in consultation with the Graduate Program Director. [Consult the Director for a selected list of Chemistry, Biology, Earth Sciences, Criminal Justice, and Legal Psychology courses].

Graduation Requirements

A grade of "C" or higher must be obtained in all courses with a cumulative average of 3.0/4.0 or higher, and presentation and submission of a satisfactory research thesis to the Thesis Committee.

History

Kenoeth Lipartito, *Professor and Chairperson*

Nina Caputo, *Assistant Professor*

Daniel A. Cohen, *Associate Professor*

N. David Cook, *Professor*

Hugh Elton, *Assistant Professor*

Rebecca Friedman, *Assistant Professor*

Mitchell Hart, *Associate Professor*

Sherry Johnson, *Associate Professor*

Alan Kahan, *Associate Professor*

Howard Kaminsky, *Professor Emeritus*

Lara Kriegel, *Assistant Professor*

Alex Lichtenstein, *Associate Professor*

Felice Lifshitz, *Associate Professor*

Akin Ogundiran, *Assistant Professor*

Joseph F. Patrouch, *Associate*

Professor and Director of Graduate Studies

Brian Peterson, *Associate Professor*

Joyce S. Peterson, *Associate Professor and Associate Dean*

Darden Asbury Pyron, *Professor*

Howard B. Rock, *Professor*

James Sweet, *Assistant Professor*

Mark D. Szychman, *Professor and Associate Dean*

Clarence Taylor, *Professor*

Victor M. Uribe, *Associate Professor*

William O. Walker III, *Professor*

Kirsten Wood, *Assistant Professor*

Master of Arts in History

The Department of History offers the M.A. degree, with concentration in one of four culture areas: United States, Africa, Europe, and Latin America. Students will choose to follow either a thesis or a report track, in consultation with the Department's Graduate Advisor. Students must make their selection either prior to registering for their first Research Seminar or before completing the first twelve (12) semester-hours toward the degree, whichever comes first. The degree requirements for the M.A. vary somewhat, according to the option taken.

Entrance Requirements

Requirements for admission into the M.A. degree program in History are the same regardless of the option selected. Applicants must also satisfy any additional requirements the University sets for admission to graduate work. Applications should include transcripts from any postsecondary institutions attended, GRE scores, and two (2) letters of recommendation.

Applicants seeking entrance for the Fall Term should prepare all applica-

tion materials in time for the Department of History to receive them no later than February 15. Applicants will be notified of the Department's decision regarding their application no later than March 15.

Application materials from individuals seeking entrance for the Spring Term must be received by the Department of History no later than October 15. Applicants will be notified of the Department's decision no later than November 15.

1. Applicants to the M.A. degree program in History must have an undergraduate average of 3.0 (on a 4.0 scale) and score 1000 or better in the Graduate Record Examination. The GRE must be taken within three years prior to the application.

2. Two letters of recommendation. Applicants should ensure that each letter on their behalf is signed by the author along the sealed flap of the envelope. Letters should be mailed directly to the Graduate Advisor, Department of History.

3. Applicants must have completed 12 semester-hours of credit (on the basis of 3-hour courses) in undergraduate courses in History.

Any applicant with fewer than twelve (12) semester-hours of undergraduate courses in History may be accepted provisionally and take a maximum of nine (9) semester-hour credits by registering for courses under the category of Special Student (consult the University Catalog and the Office of Admissions). After completing nine semester-hours of undergraduate course work in History (3000-4000 level) with no grade lower than a "B" (3.0), the student may apply for regular admission. The application will be reviewed by the Department's Graduate Advisor, in consultation with the Department's faculty. The GRE and GPA scores are only minimum requirements. All applications are reviewed by the Graduate Studies Committee which makes the final admissions decision.

Degree Requirements

Thesis Option

1. A minimum of 30 semester-hours for the degree, including a maximum of six semester-hours of Thesis Research. All course work must be taken at FIU.

2. A minimum of 24 semester-hours of course work.

3. Two Research Seminars (6 semester hours).

4. Reading competence in a foreign language. Language competency is

assessed by the faculty of the Department of History, as appropriate. Courses required to meet the language competency requirement do not count towards the degree. The Latin American concentration requires proficiency in Spanish or Portuguese; the modern European concentration in Spanish, French or German; the United States concentration in any of the above. Language exams will be graded on a High Pass, Pass, and Fail basis.

5. All students are required to take HIS 6059 (Historical Methods). Students may not transfer credits from other programs to fulfill this requirement.

6. The following limits are placed in accumulating credits toward the M.A. degree:

a. No more than three semester-hours of HIS 5908 (Independent Study) are permitted.

b. Students must receive the grade of "B" (3.0) or better in order for any course to count toward the degree.

c. A maximum of six semester-hours of HIS 5930 (Special Topics).

d. Students are prohibited from taking more than one Research Seminar per semester.

e. Students are prohibited from taking graduate-level cross-listed courses that they have already taken at the undergraduate level.

7. Core Area. Students will select one core area for concentration in United States History, European History, African History or Latin American History, in consultation with the Graduate Advisor. Twelve semester-hours of course work will be taken within the core area.

8. Breadth Areas. Students will take six semester-hours in breadth areas. These may be courses taken within the Department of History that are outside the culture area of concentration, or in associated disciplines outside of the Department (with the approval of the Graduate Advisor), or a combination of the two.

9. Students will register for up to six semester-hours of HIS 6970 (Thesis Research).

10. The thesis must be successfully defended and formally approved by a Supervisory Committee composed of three members of the Department of History. The Supervisory Committee is convened and headed by the thesis supervisor. In cases of cross-disciplinary research, an external reader from a different department may form part of the Supervisory Committee, substitut-

ing for one member from the Department of History.

11. The degree candidate will prepare the thesis in accordance with the regulations stipulated in the University's Graduate Policies Manual. The degree will be conferred after the approval of the final version of the thesis by the Office of the Dean of the College of Arts and Sciences.

Report Option

1. A minimum of 30 semester-hours of course work are needed for the M.A. degree. The report option does not set requirements of the Core/Breadth area distribution. Students will design their distribution needs in consultation with the Graduate Advisor and the relevant faculty. All courses must be taken in the Department of History at FIU.

2. A minimum of two Research Seminars (6 semester-hours) must be taken. Only Research Seminar papers (2) that secure relevant faculty approval may be submitted to the Graduate Advisor for process of final approval.

3. The following limits are placed on accumulating credits towards the Master's degree:

a. Students must receive the grade of "B" (3.0) or better for the course to count toward the degree.

b. HIS 5908 (Independent Study) is limited to three semester-hours.

c. HIS 5930 (Special Topics) is limited to six semester-hours.

d. HIS 6059 (Historical Methods) is required of all students.

Core Courses

The following courses count for both the Thesis and the Report options:

AFH 5905	Readings in African History
AFH 5935	Topics in African History
AFH 6915	Research in African History
AMH 5905	Readings in American History
AMH 5935	Topics in American History
AMH 6915	Research in American History
EUH 5905	Readings in European History
EUH 5935	Topics in European History
EUH 6915	Research in European History
LAH 5905	Readings in Latin American History
LAH 5935	Topics in Latin American History

LAH 6915	Research in Latin American History
HIS 5289	Comparative History
HIS 5930	Special Topics
HIS 5908	Independent Study
HIS 5910	Advanced Research Seminar

Consultation with the Graduate Advisor is required before registering for the following courses:

HIS 6059	Historical Methods
HIS 6970	Thesis Research

Doctor of Philosophy in History

The doctoral program in History offers students opportunities to concentrate on the areas of Latin America, Africa, the United States, or Europe. The program contains an underlying comparative framework based on the civilizations of the Atlantic, which allows students to explore the many dimensions of crosscultural exchanges. The curriculum thus emphasizes the comparative framework around the Atlantic experience, and reflects the vitality of a cross-disciplinary approach.

Admission to the Program

Every applicant must supply copies of a curriculum vitae, college transcripts, and at least two letters of recommendation. Admission requires a minimum of 1100 combined Verbal and Math GRE scores, and a minimum undergraduate GPA of 3.0. Applicants with M.A. degrees are required to have a graduate GPA of at least 3.25. The GRE History specialty examination is not required, but scores may be submitted if available. For students whose native language is not English, the TOEFL exam is required, with a score of at least 575 in the paper-based test and 213 in the computer-based test. A writing sample should be included in the application. For those transferring into the program who already hold the MA, the thesis, when available, should be submitted as the sample. Finally, a short statement addressing the student's goals and objectives in pursuing the doctorate in history is also required.

All applicants to the Ph.D. program must hold the degree of M.A. or its equivalent. If the M.A. is in a field other than history, at least 12 credits of graduate-level history classes are required for admission. Prospective students who do not meet this requirement may enroll as Non-Degree seeking students in 9 credits of graduate-level courses and complete these with at least the grade of "B"

before applying to the program. Enrollment as a Non-Degree seeking student for more than one semester requires departmental permission. The Graduate Committee will determine whether or not these credits apply toward the degree.

Applicants seeking entrance for the Fall Term should prepare all application materials in time for the Department of History to receive them no later than February 15. Applicants will be notified of the Department's decision regarding their application no later than March 15.

Application materials from individuals seeking entrance for the Spring Term must be received no later than October 15. Applicants will be notified of the Department's decision no later than November 15.

Degree Requirements

Number of Credits and Nature of Required Courses

A minimum of 60 semester-hours of credit are required beyond the Master of Arts degree of which 9 credits will be taken as a common core consisting of: historical methods, an introductory reading seminar in Atlantic Civilization and a research seminar in Atlantic Civilization. A further 18 credits are required in the student's core culture area to be chosen from the United States, Latin America, Africa, or Europe. An additional 12 credits are required in geographical/topical areas outside the culture area of concentration. These out-of-area distribution courses may be taken in either History or a cognate discipline. A maximum of 24 hours of credit is required for the dissertation.

Language Requirements

The language requirement may be fulfilled in one of two ways: 1) thorough knowledge of one foreign language and reading knowledge of another are required of all students; or 2) students may demonstrate knowledge of one language and competency in social science quantitative skills. Language requirements vary, according to the concentration fields. In cases where the dissertation will be in the history of US or English-speaking countries, one language plus the quantitative skill is sufficient. In Latin American history, Spanish and Portuguese are expected. Language exams will be graded on a High Pass, Pass, and Fail basis; a High pass is required in the student's primary language. Students should check with the Depart-

ment's Director of Graduate Studies to determine which languages are appropriate for their program of studies.

Composition of Course Work

A minimum of 60 semester-hours of work after completion of the Master's degree in History are required, of which a maximum of 24 hours are permitted for the doctoral dissertation. The courses form part of the student's development in the field, factual and interpretive, in preparation for the comprehensive written and oral examinations to qualify for doctoral candidacy. A minimum of 27 hours of residency (e.g., three semesters for full-time students) is expected prior to filing for the qualifying examinations. The student may, in consultation with the faculty, decide that more work is necessary before the exams are attempted. The standard course load of nine hours per semester means that the qualifying examinations will usually be administered near the end of the second year of residency, or at the beginning of the third year.

Course Requirements beyond the Master's degree

Common Core	9
Culture Area Concentration	18
Out-of-Area Distribution	12
Dissertation	24
Total	63

Common Core Courses: (9)

Historical Methods *
Advanced Readings in Atlantic Civilization
Research in Atlantic Civilization *(Historical Methods' may not be transferred from a Master of Arts Program.)

Culture Area Concentration

Courses: (18 credits minimum from either AFH, AMH, EUH, or LAH core below).

Readings in African History
Readings in American History
Readings in European History
Readings in Latin American History
Advanced Readings in American History
Advanced Readings in European History
Advanced Readings in Latin American History
Research in African History
Research in American History
Research in European History
Research in Latin American History

Out-of-Area Distribution Courses: (12 credits outside general field concentration or in other departments).

Dissertation Research: (18-24 credits)
The time needed for the research and writing of dissertations in History is variable, although doctoral candidates normally spend one year engaged in continuous field research and a second year in full-time writing. The program expects students to devote a minimum of 18 hours to activities related to the dissertation subsequent to candidacy, that is, after passing the Comprehensive Examinations.

Comprehensive Examinations and the Dissertation.

Following completion of all course work and language competencies, students will be required to pass a written and an oral comprehensive examination, and to write a dissertation. Exams will be administered, as needed, no more than two times each year. Students should consult the Director of Graduate Studies for the date of the exams. The exams will cover knowledge in four fields: 1) a general field; 2) a period/geographical subfield; 3) a comparative field; 4) a methodological and/or interdisciplinary field.

Restrictions

1. The grade of "B" or better is required for graduate credit.

2. At the end of the second semester of residence, or upon completion of the first 18 credit-hours of work, the Graduate Committee will examine and evaluate the student's progress and prospects. Professors will provide detailed written evaluations of the work of all first-year Ph.D. students they have taught. Students whose progress is deemed insufficient will be advised to withdraw from the program.

3. No more than 6 semester-hours of Topics (5935) courses toward meeting the degree requirements, without permission of the Director of Graduate Studies.

4. No more than 6 semester-hours of HIS 5908 (Independent Study) toward meeting the degree requirements, without permission of the Director of Graduate Studies.

Course Descriptions

Definition of Prefixes

AFH-African History; AMH-American History; EUH-European History; HIS-General; LAH-Latin American History.

AFH 5905 Readings in African History (3). An examination of historiographical traditions within African history. Topics will vary; with a change in theme, the course may be

repeated. Prerequisite: Graduate standing.

AFH 5935 Topics in African History (3). An examination of specific themes in African history. Topics will vary. With a change in theme, the course may be repeated. Prerequisite: Graduate standing.

AFH 6915 Research in African History (3). Research in primary and secondary sources on African History. Subjects may vary. May be repeated with departmental approval. Prerequisite: Graduate standing.

AMH 5905 Readings in American History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in American history. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

AMH 5935 Topics in American History (3). An examination of specific themes or topics in American 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.) Prerequisite: Graduate standing.

AMH 6906 Advanced Readings in American History (3). Detailed analysis of a selected topic in American History. May be repeated as topics vary. Prerequisite: Graduate standing.

AMH 6915 Research in American History (3). Students conduct research in primary and secondary sources on aspects of important subjects in American History. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

EUH 5905 Readings in European History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in European history. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

EUH 5935 Topics in European History (3). An examination of specific themes or topics in European 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). Prerequisite: Graduate standing.

EUH 6906 Advanced Readings in European History (3). Detailed analysis of a selected topic in European history. May be repeated as topics vary. Prerequisite: Graduate standing.

EUH 6915 Research in European History (3). Students conduct research in primary and secondary sources on aspects of important subjects in European History. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

HIS 5289 Comparative History (3). 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). Prerequisite: Graduate standing.

HIS 5908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor. Prerequisite: Graduate standing.

HIS 5910 Advanced Research Seminar (3). Small group sessions will analyze particular subject areas in history, with the consent of the instructor. Prerequisite: Graduate standing.

HIS 5930 Special Topics (3). 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). Prerequisite: Graduate standing.

HIS 5940 Supervised Teaching (1-3). The students will work under the close supervision of a regular member of the faculty in a mentorial fashion. The supervision will cover various aspects of course design and delivery in history. Prerequisite: Graduate standing.

HIS 6059 Historical Methods (3). A seminar designed to introduce the beginning graduate student to the technical aspects of the study of history. Prerequisite: Graduate standing.

HIS 6159 Historiography (3). An introduction to the discipline of

history, with primary and secondary readings allowing exploration of the evolution of historical schools of thought over several generations. Prerequisite: Graduate standing.

HIS 6906 Advanced Readings in Atlantic Civilization (3). A team-taught, comparative course dealing with the interactions between at least two of the geographical fields of concentration. May focus on one or more topics. Required of all Ph.D. students during their first term of study in the program. Prerequisite: Graduate standing.

HIS 6918 Research in Atlantic Civilization (3). A research seminar on cross-cultural topics, involving the comparative method. Required of all Ph.D. students in the program, during second term of residence. Topics will vary. Prerequisite: Graduate standing.

HIS 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. May be repeated. Prerequisite: Permission of Department.

HIS 7972 Dissertation Research (1-9). Research toward the completion of a doctoral dissertation. May be repeated. Prerequisite: Admission to Doctoral Candidacy.

HIS 7980 Dissertation (1-9). Completion of Doctoral Dissertation. Prerequisite: Admission to Doctoral Candidacy.

LAH 5905 Readings in Latin American History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in Latin American history. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

LAH 5935 Topics in Latin American History (3). An examination of specific themes or topics in Latin American 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). Prerequisite: Graduate standing.

LAH 6906 Advanced Readings in Latin American History (3). Detailed analysis of a selected topic in Latin American history. May be repeated as topics vary. Prerequisite: Graduate standing.

LAH 6915 Research in Latin American History (3). Students conduct research in primary and secondary sources on aspects of important subjects in Latin American history. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

International Relations

Damian J. Fernandez, *Associate*

Professor and Chairperson

Ken I. Boodhoo, *Associate Professor*

Thomas A. Breslin, *Associate*

Professor

John F. Clark, *Associate Professor*

Ralph S. Clem, *Professor*

Emily Copeland, *Assistant Professor*

Peter R. Craumer, *Associate*

Professor

Francois Debrix, *Assistant Professor*

Gail M. Hollander, *Assistant*

Professor

Antonio Jorge, *Professor*

Paul Kowert, *Assistant Professor*

Charles G. MacDonald, *Professor*

Felix Martin, *Assistant Professor*

Carmelo Mesa-Lago, *Visiting*

Professor

Mohiaddin Mesbahi, *Associate*

Professor

Rod Neumann, *Associate Professor,*

Director of Graduate Studies

Nicholas G. Onuf, *Professor*

Patricia L. Price, *Assistant Professor*

Elisabeth Prugl, *Associate Professor*

William O. Walker III, *Professor*

Gregory B. Wolfe, *Professor*

Master of Arts

The Graduate Program in International Studies, administered by the Department of International Relations, offers two advanced degrees: a Master of Arts in International Studies and a Doctor of Philosophy in International Relations. The Department emphasizes a multidisciplinary approach to graduate education. This emphasis reflects the many disciplines and perspectives represented in the Department, and it results in a vital and challenging exchange of ideas among students and faculty members. Together they investigate a stimulating range of topics, from the traditional concerns of foreign policy and national security to contemporary global issues such as democratization, the environment, human rights, refugees, and social movements. These scholarly inquiries are generally informed by an engagement with social and political theory, to which students are exposed through a closely coordinated set of graduate reading seminars. Many members of the Department have longstanding regional interests, as do many other members of the University faculty. The program boasts of strengths in Africa, Central Asia, Latin America and the Caribbean, the Middle East, and Russia.

The Graduate Program in International Relations is an affiliate member

of the Association of Professional Schools of International Affairs.

Master of Arts in International Studies

The M. A. program draws on the curricular resources of all the University's social science departments. It is designed to prepare students for careers in government, the private sector, or international agencies, or for doctoral studies.

The College of Arts and sciences offers certificate programs in African-New World Studies and in Latin American and Caribbean Studies. Other regional certificate programs are planned. The graduate program encourages its M.A. students to pursue regional certification in conjunction with their work in the M.A. program.

Admission Requirements

To be considered for admission to the M.A. program, applicants must have a 3.0 in upper-level work, or its equivalent, from a recognized institution, or a combined score of 1000 on the first two sections of the Graduate Record Examination. For applicants who are not native speakers of English, a minimum of 550 on the TOEFL is required. Scholarships and renewable assistantships are available.

Degree Requirements

The M.A. program requires a minimum of 36 semester hours of credit at the graduate level. Undergraduate courses taken to satisfy prerequisites for graduate courses will not count toward the 36 hour minimum requirement. The Graduate Advisory Committee may approve the transfer of a maximum of six graduate credits earned in a non-degree capacity from the Department of International Relations, other units of the University, or other recognized institutions of higher education.

Core Sequence (15 credits)

All M.A. students must complete a core sequence of five courses (15 credits), each of which reflects a distinctive disciplinary point of view. These courses are:

INR 6706	Political Economy of International Relations
INR 5615	Research Design in International Relations
INR 5xxx	Space, Place and Identity
INR 6609	Dynamics of International Relations in the 20 th Century

INR 6017 Comparative Approaches to Area Studies and Global Issues

Major Field (9 credits)

M.A. students also must select a major field of study in (1) Global Institutions and Issues, or (2) International Relations and Foreign Policy, by taking three courses (9 credits) from an extensive list of approved courses in the social sciences. Students must take at least two courses offered by the Department of International Relations to satisfy the field requirement.

Electives: (6 credits)

To satisfy the program's elective requirement, students may take two additional courses (6 credits) from the field lists. Students wishing to elect other graduate-level courses offered by the University may do so with permission of the Graduate Director.

Thesis and Alternatives (6 credits)

To complete degree requirements, M.A. students have the option of (a) writing a thesis or (b) taking a comprehensive examination. Before electing any of these options, students must demonstrate competence in the use of a foreign language other than English.

Any student electing (a) to write a thesis will normally take 6 credit hours of thesis supervision and prepare a thesis proposal subject to the approval of three members of the University faculty. A member of the Department of International Relations must chair any thesis committee thus constituted. No thesis may be approved until the writer has defended it in a public examination. Any student electing (b) to take a comprehensive examination must have 6 semester hours of course work (including independent study courses), instead of thesis supervision, for a total of 36 semester hours. One half of the comprehensive examination will cover the core sequence of courses, and the other half will cover the student's major field.

Doctor of Philosophy in International Relations

The Ph.D. program is designed to prepare students for careers as scholars and teachers. It provides students with a solid theoretical foundation while allowing individual latitude for rigorous research on a wide range of subjects. Students work closely with

dedicated, internationally recognized scholars.

Admission Requirements

To be considered for admission to the Ph.D. program, all applicants must have a bachelor's degree, or its equivalent, from a recognized institution of higher education, or have received a bachelor's degree before they matriculate in the program.

Applicants should have a minimum undergraduate grade point average of 3.2, or its equivalent, a minimum graduate point average of 3.5 for all combined graduate work, or a combined score of 1100 on the first two sections of the Graduate Record Examination. For applicants who are not native speakers of English, a minimum of 575 on the TOEFL is required. Scholarships and renewable assistantships are available. Applications will be reviewed only in the spring term for fall admission. Applications for financial assistance must be completed by February 15, and applications for admission by April 15.

Degree Requirements

The Ph.D. requires a minimum of 90 semester hours of credit at the graduate level.

Undergraduate courses taken to satisfy prerequisites for graduate courses will not count toward the 90 hour minimum requirement. Students earning a M.A. degree within the last five years may count 36 credits toward the 90 hour minimum requirement. The Graduate Advisory committee may approve the transfer of a maximum of 12 graduate credits earned in a non-degree capacity from the Department of International Relations, and a maximum of 24 semester hours of graduate credit earned in other units of the University or other recognized institutions of higher education.

Core Sequence (18 credits)

All Ph.D. students must complete a core sequence of six courses (18 credits). These courses are:

INR 5615	Research in International Relations
INR 5xxx	Space, Place, and Identity
INR 6604	International Relations Theory I
INR 6608	International Relations Theory II
INR 6609	Dynamics of International in the 20 th Century
INR 6706	Political Economy of International Relations

Major and Minor Fields (21 credits)

Students must select a major field of study in (1) Global Institutions and Issues (2) Comparative Area Studies (3) Foreign Policy and Security Studies, or (4) International Law by taking four courses (12 credits) from a list of approved courses. Students must also offer a minor field of study consisting of at least three courses (9 credits), (a) by choosing a second field from the above list, (b) by taking a Ph.D. field in some other teaching unit of the University, or (c) by creating a field in consultation with the Graduate Director and three members of the University faculty.

Electives (27 credits)

To satisfy the Ph.D. program's elective requirement, students must take 27 credits of additional course work, including independent study courses. Students wishing to elect a course or courses offered in the University may do so with permission of the Graduate Director. Students must demonstrate an ability to use a foreign language other than English for scholarly purposes.

Comprehensive Exams

Within 6 months of completing the foreign language requirement and 66 hours of course work, students must sit for written comprehensive examinations on the core sequence in both of their fields. Students may sit for their comprehensive examination during the term in which they complete these requirements. After passing all three parts, students are examined orally on all parts.

Dissertation

Within 3 months of passing written and oral examinations, students should publicly present a dissertation proposal that is acceptable to a committee of at least three qualified scholars. Two members of the committee, including the dissertation supervisor, must be members of the Department of International Relations. Other members must be approved by the Graduate Director.

Students advance to candidacy when all members of their dissertation committees accept their proposals.

To complete program requirements, Ph.D. degree candidates must enroll for 24 dissertation credits and therefore maintain matriculation until they defend their dissertations in public.

Course Descriptions

Definition of Prefixes

GEA-Geography-Regional (Area); GEO-Geography-Systemic; INR-International Relations; PUP-Public Policy.

F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

GEO 5415 Topics in Social Geography (3). Topics discussed include geographic aspects of population and ethnicity, with emphasis on sources and analysis of data and pertinent concepts. Prerequisite: GEA 2000 or Permission of the instructor. (S)

GEO 5XXX Globalization (3). Examines the transformation of the world economy and of global finance, the changing significance of sovereignty and territoriality, the effects of space-time compression on everyday life, and associated shifts in culture and identity.

GEO 6XXX Space, Place and Identity (3). Explores space, place and identity in international relations. Focus is on the importance of the spatial relations in structuring the politics of nationalisms, ethnicities, and genders.

INR 5086 Islam in International Relations (3). Analysis of the role of Islam in shaping the dynamics of contemporary international relations. Emphasis on the ideological, cultural, and political role of Islamic movements and states, and their relations with the West. (F)

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics. (S)

INR 5255 Seminar in African Development (3). Examines political, economic and social development in Sub-Saharan Africa in an international context. Introduces students to sources for research in African international development. Prerequisites: Undergraduate course on Africa or graduate status.

INR 5315 Foreign Policy Analysis (3). Comparative examination of theories of foreign policy making, emphasizing the international, domestic, and organizational contexts in

which national policies are formulated and enacted. Prerequisites: Graduate standing or Permission of the instructor. (F)

INR 5409 International Law I (3). Role of international law in the relations of states; nature, development, theory, sources of law; international personality; jurisdiction, including territory and nationality; dispute settlement. (F)

INR 5507 International Organizations I (3). Study of international organizations and their role in international relations. Emphasis on their legal status, rule-making capacities and role in dispute settlement and maintenance of peace. (S)

INR 5607 International Relations and Development (3). An analysis and conceptualization of the process of development as it takes place in the international context. Special attention given to the role of international organizations in promoting development and the manner in which differences in developmental levels conditions international relations. (S)

INR 5615 Research Design in International Relations (3). Introduces graduate students to the principles of formulating and defending a compelling research design, gathering and analyzing evidence, and producing scholarship.

INR 5906 Independent Study (VAR). Directed independent research. Requires prior approval by instructor. (F,S,SS)

INR 5935 Topics in International Relations (3). Varies according to the instructor. (F,S,SS)

INR 5943 Internship in International Relations (1-6). Permits student to gain direct experience with analysis and conduct of international affairs. Work required for internship must be determined in consultation with instructor. Prerequisites: Graduate standing and permission of the instructor.

INR 5945 Graduate Pedagogy (1). The development of teaching skills required by graduate assistants, including classroom skills, designing examinations, etc. Prerequisite: Graduate Assistants.

INR 6008 Colloquium in International Studies (3). A systemic and International Relations theory supple-

mented with a consideration of legal, institutional and developmental issues. Prerequisite for MIB students: INR 6603 (World Politics).(S)

INR 6017 Comparative Approaches to Area Studies and Global Issues (3). Provides students the necessary tools to approach global issues from the comparative perspective of how they play out in different regions of the world. Prerequisite: Graduate standing.

INR 6019 Seminar in Comparative Area Studies (3). Examines contemporary issues in area studies, with focused attention on the interplay between domestic and international forces and the conditioning effects of global structures. Topics vary by instructor. Prerequisite: INR 6017.

INR 6056 Environment and Development (3). Examines the relationship of development and the environment from a social theory perspective. Emphasizes Third World problems such as deforestation and soil erosion.(S)

INR 6089 International Relations and Human Rights (3). Examination of national and international factors affecting respect for human rights. Special emphasis on international human rights groups, foreign policy, and politics of policy implementation. (S)

INR 6107 U.S. Foreign Policy (3). Examines the structures and processes that shape U.S. policy toward other nations. Topics include: systemic constraints, state/society relations, interest groups, bureaucracy, and leadership. (F)

INR 6209 Comparative Foreign Policy of Latin America (3). Theories, history, and political-economic dynamics of Latin American foreign policies and international relations. (S)

INR 6266 Seminar in Russian Foreign Policy (3). Close analysis of the theoretical foundation and policy evolution of Soviet/Russian role in international affairs of the 20th century. (S)

INR 6338 Seminar in Strategic Studies (3). Close analysis of key traditional and non-traditional concepts of the field of Strategic Studies, i.e. the genesis of power, war and peace, security and their relevance to and impact on International Relations. (S)

INR 6402 International Law II (3). The course, which is the second of a two course graduate sequence, focuses

on special topics, e.g., treaties, state responsibility, force and jurisdiction. Prerequisite: International Law I.

INR 6604 International Relations Theory I (3). An analysis of the traditional approaches to international relations theory, beginning with the classic works in the field. Emphasizes the philosophical and normative underpinnings of realism, idealism, liberalism and radicalism. (F)

INR 6605 Contemporary International System (3). Study of synthetic review of theories of development and approaches to the study of development as a process of social, political, and economic change. Prerequisites: CPO 5036 and ESC 5025. (S)

INR 6606 Political Psychology of International Relations (3). Study of psychological explanations for political behavior in international relations. Topics include: cognitive, motivational, and bureaucratic decision theories; leadership; and public opinion. (F)

INR 6608 International Relations Theory II (3). Surveys contemporary theories of International Relations, including neo-realism, theories of cooperation among states, approaches to international political economy, and critical theories. (S)

INR 6609 Dynamics of International Relations in the 20th Century (3). Surveys the 20th century's large events and important tendencies decade by decade, as registered by intellectual and policy elites at the time. (S)

INR 6706 Political Economy of International Relations (3). Examines contemporary theoretical and policy debates in the area of international political economy. Reviews key concepts, theories and approaches used in the study of IPE. Prerequisites: INR Theory I or Permission of the instructor. (F)

INR 6975 Thesis (1-6). Registration for students working on their thesis. Prerequisites: All other course work for the Master's in International Studies. (F,S,SS)

INR 7980 Dissertation Research in International Relations (1-9). Supervised research on an original research project to be submitted in partial fulfillment of doctoral degree requirements. Prerequisite: Admission to candidacy.

Latin American and Caribbean Studies

Irma Alonso, *Professor, Economics*

Astrid Arraras, *Assistant Professor, Political Science*

Ken Boodhoo, *Associate Professor, International Relations*

Carol Boyce Davies, *Professor African-New World Studies*

David Bray, *Associate Professor, Environmental Studies*

Jean Robert Cadely, *Assistant Professor, Modern Languages*

Erik Camayd-Freixas, *Assistant Professor, Modern Languages*

Isabel Castellanos, *Associate Professor, Modern Languages*

Janet Chernela, *Professor, Sociology/Anthropology*

Noble David Cook, *Professor, History*

Carol Damian, *Associate Professor, Visual Arts*

Leonel de la Cuesta, *Professor, Modern Languages*

Damian Fernandez, *Professor, International Relations*

Nadine Fernandez, *Assistant Professor, Sociology/Anthropology*

Eduardo A. Gamarra, *Professor, Political Science*

Asuncion Gomez, *Assistant Professor, Modern Languages*

Guillermo Grenier, *Associate Professor, Sociology/Anthropology*

Ivelav Griffith, *Associate Professor, Political Science*

Christine Gudorf, *Professor, Religious Studies*

John B. Jensen, *Associate Professor, Modern Languages*

Sherry Johnson, *Assistant Professor, History*

Antonio Jorge, *Professor, International Relations/Economics*

Santiago Juan-Navarro, *Assistant Professor, Modern Languages*

A. Douglas Kincaid, *Associate Professor, Sociology/Anthropology*

Barry Levine, *Professor, Sociology/Anthropology*

Sarah Mahler, *Associate Professor, Sociology/Anthropology*

Anthony P. Maingot, *Professor, Sociology/Anthropology*

Kathleen Martin, *Associate Professor, Sociology/Anthropology*

Juan Martinez, *Associate Professor, Visual Arts*

Michael McClain, *Assistant Professor, Environmental Studies*

Raul Moncarz, *Professor, Business Administration*

Dario Moreno, *Associate Professor, Political Science*

Richard Olson, *Professor, International Hurricane Center*

Lisandro Perez, *Associate Professor, Sociology/Anthropology*

Patricia Price, *Assistant Professor, International Relations*

Timothy Power, *Assistant Professor, Political Science*

Jean Rahier, *Associate Professor, African-New World Studies*

Terry Rey, *Assistant Professor, Religious Studies*

Ana Roca, *Professor, Modern Languages*

Mark B. Rosenberg, *Professor, Political Science*

Jorge Salazar-Carrillo, *Professor, Economics*

Reinaldo Sanchez, *Professor, Modern Languages*

Andrea Seidel, *Associate Professor, Theatre and Dance*

Robin Sheriff, *Assistant Professor, Sociology/Anthropology*

Alex Stepick, *Professor, Sociology/Anthropology*

James Sweet, *Assistant Professor, History*

Mark D. Szychman, *Professor, History*

Richard Tardanio, *Associate Professor, Sociology/Anthropology*

Juan Torres-Pou, *Assistant Professor, Modern Languages*

Victor Uribe, *Associate Professor, History*

William Vickers, *Professor, Sociology/Anthropology*

Maida Watson, *Professor, Modern Languages*

Mira Wilkins, *Professor, Economics*

Maria Willumsen, *Associate Professor, Economics*

Theodore Young, *Associate Professor, Modern Languages*

Florence Yudin, *Professor, Modern Languages*

The Master of Arts in Latin American and Caribbean studies (MALACS) is a multidisciplinary program. It responds to the diversity of disciplinary and interdisciplinary approaches to the study of Latin America and the Caribbean. The program will prepare students for doctoral-level studies in academic disciplines and for careers in the public and private sectors. Full-time students can expect to complete the program, including thesis, in 18-24 months.

Admission Requirements

Applicants must meet the following minimum admissions requirements:

1. A baccalaureate degree from an accredited institution for higher education, or equivalent.

2. A grade-point average of at least 3.0 on a 4.0 scale (or equivalent) for the last two years of undergraduate study and for any post-baccalaureate study.

3. A combined verbal and quantitative score of at least 1000 on the GRE.

4. A statement of purpose consistent with the goals of the program.

5. Three letters of recommendation.

6. For foreign applicants whose native language is not English, a TOEFL score of at least 550.

7. Approval by the program admissions committee.

Degree Requirements

The program consists of 36 credit hours, 30 of which involve multidisciplinary course work, including a pro-seminar (three credits); an emphasis (15 credits) to be selected from the program's core concentrations (Cultural Studies, Economics, Environmental Studies, History, International Relations, Modern Languages, Political Science, and Sociology/Anthropology); and a breadth requirement (12 credits) comprising courses from at least two other areas of emphasis, which may include offerings of programs outside the core concentrations. A master's thesis (six credits) is also required. As a non-credit requirement, students must demonstrate reading proficiency in either Spanish or Portuguese or, when advisable, another foreign language. The program stresses a close faculty-student advising relationship and the participation of visiting scholars from Latin America, the Caribbean, and other regions. The specific requirements of the program are as follows.

Course Work

Thirty credits of course work, to be selected from the approved list of graduate courses included in the FIU catalog. Courses must be passed with grades of 3.0 or better and distributed as follows:

1. A pro-seminar, LAS 6003, (three credits): focuses on the logic of inquiry on Latin America and the Caribbean, providing an introduction to comparative and historical perspectives on the region; comparisons with other world regions; and an overview of disciplinary approaches and research

resources. To be offered each fall semester.

2. Area of Emphasis: 15 credits (five courses) selected from the graduate offerings of the student's field of concentration (Cultural Studies, Economics, Environmental Studies, History, International Relations, Modern Languages, Political Science, or Sociology/Anthropology). Of this total, a minimum of three credits (one course) must be fulfilled by taking the appropriate department's graduate course(s) in research methodology to ensure that the student receives the training to carry out a successful thesis project.

3. Breadth requirement: 12 credits (four courses) selected from the graduate offerings of at least two disciplines other than those of the concentration. Subject to the advisor's approval, up to six credits (two courses) may be selected from the graduate offerings of FIU programs besides those of the core concentrations.

Economics

ECO 5709	The World Economy
ECS 5027	Economic Development of Emerging Nations
ECS 7015	Development Economics: Theory
ECS 7026	Development Economics: Planning and Policy
ECS 7405	Economics of Latin America
ECS 7435	Economics of the Caribbean
ECS 7445	Economics of Central America

Environmental Studies

EVR 5067	Tropical Rainforest Conservation/Utilization
EVR 5360	Protected Area Management
EVR 5355	Environmental Resource Policy
EVR 5412	Women and the Population/Environment Equation
EVR 5993	Environment and Development in Latin America
EVR 5996	International Organizations and Environmental Politics
EVR 6322	Methods in Sustainable Resource Management
EVR 5313	Renewable Energy Sources
EVR 5353	International Energy Policy

EVR 5065	Ecology of the Costa Rican Rainforest
EVR 5066	Ecology of the Amazon Flooded Rainforest
History	
LAH 5915	Research in Latin American History
LAH 5935	Topics in Latin American History
International Relations	
GEO 5415	Topics in Social Geography ¹
INR 5087	Ethnicity and the Politics of Development
INR 5607	International Relations and Development
INR 5935	Topics in International Relations ¹
INR 6008	Colloquium in International Studies
INR 6209	Comparative Foreign Policy of Latin America
INR 6605	Contemporary International System
Latin American Studies	
LAS 6003	Survey of Latin America
LAS 6930	Intro Latin American Data Analysis

Modern Languages

SPN 5525	Spanish American Culture
SPW 5237	The Traditional Spanish American Novel
SPW 5286	Contemporary Spanish American Novel
SPW 5358	Graduate Seminar: Prose and Poetry of Jorge Luis Borges
SPW 5575	Spanish American Modernism
SPW 5735	Hispanic Literature of the United States
SPN 6535	Hispanic Culture in the United States

Political Science

CPO 5036	Politics of Development
CPO 5091	Seminar in Comparative Politics
CPO 5935	Topics in Comparative Politics
POS 5158	Topics in Politics ¹

Sociology/Anthropology

ANT 5548	Ecological Anthropology
ANT 6931	Seminar on Latin America
SYP 5447	Sociology of International Development
SYP 6306	Comparative Social Movements
SYD 6325	Seminar in the Comparative Sociology of Gender

SYD 6705	Comparative Analysis of Ethnicity and Race
SYP 6907	Seminar in Comparative Social Change
SYD 6427	Seminar in Comparative Urban Issues

¹Course may be counted toward requirements only with approval of graduate program director. Other courses not listed may also be counted with approval of graduate program director.

Methods

A minimum of three credits (one course) must be fulfilled by taking the appropriate department's graduate course(s) in research methodology.

Foreign Language

Each student is required to demonstrate reading proficiency in either Spanish or Portuguese, or in another language such as French, Haitian Creole, or Dutch when justified by research interests. Proficiency is demonstrated by scoring at least 'intermediate high' on the ACTFL/ETM exam for Spanish, Portuguese, or French. For other languages, corresponding tests of proficiency and levels of achievement will be required.

Thesis

The writing and defense of a thesis is required of all students. The thesis will be evaluated by a committee of three faculty members. The committee chair and at least one other member must be from core departments. The committee as a whole must be drawn from at least two departments. Thesis credits (six required) are in addition to the required 30 credits of course work.

For further information please contact Theodore R. Young, Director, of Graduate Studies, Latin American and Caribbean Center, Florida International University, University Park, Miami, Florida 33199. Phone: (305) 348-2894; Fax: (305) 348-3593; or email: MALACS@fiu.edu.

Linguistics

Feryal Yavas, *Lecturer and Director, English*

Lynn M. Berk, *Professor, English*

Jean-Robert Cadely, *Assistant Professor, Modern Languages*

Isabel Castellanos, *Professor, Modern Languages*

Tometro Hopkins, *Associate Professor, English*

John B. Jensen, *Professor, Modern Languages*

Peter A. Machonis, *Associate Professor, Modern Languages*

Ana Roca, *Professor, Modern Languages*

Mehmet Yavas, *Professor, English*

Master of Arts in Linguistics

Admission Requirements

Applicants must meet the University's graduate general admissions requirements; a GRE score of 1000 on the verbal and quantitative sections or an undergraduate GPA of 3.0 will be required. In addition, non-native speakers of English must submit a TOEFL score of 600.

Degree Requirements

The Master of Arts in Linguistics requires 36 graduate hours in Linguistics. Twenty-one of the 36 hours are in required courses, the remainder in electives. Beside maintaining an overall 3.0 average in all courses, students must also obtain a minimum of a 'B' in each of the required courses ('B-' is not acceptable in these courses) and a minimum of a 'C' in each elective course ('C-' is not acceptable). Course work will be as follows:

Required Courses (All Students): (15)

LIN 5018	Introduction to Linguistics	3
LIN 5206	Phonetics	3
LIN 6323	Phonology	3
LIN 6510	Syntax I	3
LIN 6805	Semantics	3

A minimum of one course from each of the following groups:

Structure Course (3)

LIN 5501	English Syntax
LIN 5341	Morphology
SPN 5705	Structure of Spanish
FRE 5855	Structure of French
LIN 6572	Structure of a Non Indo-European Language

History Course (3)

LIN 5107	History of the English Language
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LIN 5146	Historical and Comparative Linguistics
SPN 5845	History of the Language
FRE 5845	History of the Language

The remaining hours must be selected from other Linguistics (LIN) graduate offerings. Certain non-linguistics courses can be accepted with the approval of the Linguistics Committee.

Foreign Language Requirement

Students with no background in foreign languages will be required to take LIN 6572 "Structure of a Non-Indo-European Language" as a part of their 36-hour program.

Examination Requirement

Students will be required to take a written comprehensive exam in Linguistics. For most students, this will be a written exam. For any student who is writing a thesis and has a GPA of 3.7 or above, the thesis defense will constitute the comprehensive exam.

Thesis/Non-Thesis Options

Students may elect to follow a thesis or a non-thesis option. Those electing to write a thesis will take up to six credit hours in thesis research as part of their required 36 hours. When completed, the thesis will be defended orally before a committee made up of three faculty members, including the thesis director. Those electing to follow the non-thesis option will take all 36 hours in non-thesis courses.

Course Descriptions

Definition of Prefixes

LIN - Linguistics.

F-Fall semester offering; S-Spring semester offering

LIN 5017 Cognitive Linguistics (3).

Explores the nature of human reason and categorization as revealed by language. Examines the role of metaphor, imagination, and bodily experience in human thought processes. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5018 Introduction to Linguistics

(3). Introduction to Linguistic theory and analysis, with special emphasis on the major components of languages and modern approaches to their analysis. (F)

LIN 5019 *Metaphor, Language, and Literature* (3). Examines nature of metaphor as a cognitive phenomenon; how we use metaphor to conceptualize basic physical and cultural notions; role of cognitive metaphor in literature. Prerequisite: LIN 3013 or LIN 5018.

LIN 5107 *History of the English Language* (3). Study of the development of the grammar and vocabulary represented in samples of the English language from the 8th century to modern times. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent. (F)

LIN 5108 Language Universals (3).

Universal properties of language from two major perspectives: those of Typologists and of Universal Grammmarians. A variety of linguistic structures and theoretical explanations are examined. Prerequisite: LIN 3013, or LIN 3010, or LIN 5018, or the equivalent.

LIN 5146 Historical and Comp-

arative Linguistics (3). The study of linguistic methodology for determining historical and genetic relationships among languages. Diachronic syntax and its methodology will be included. The relevance of historical and comparative linguistics to similar processes found in language acquisition and to socio-linguistics will be studied. Prerequisite: LIN 5206.

LIN 5206 Phonetics (3).

The study of the articulatory mechanisms used in producing speech sounds and of their acoustic properties. Ear training in the phonetic transcription of speech sounds used in the world's languages. (F)

LIN 5207 Acoustic Phonetics (3).

Introduction to principles of acoustic and instrumental phonetics, including the physics of speech sounds and use of the sound spectrograph and other instruments. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent, plus one additional course in phonetics or phonology. Corequisite: One of the prerequisites may be counted as a corequisite.

LIN 5211 Applied Phonetics (3).

Study of sounds and suprasegmentals of English. Comparison of phonetic features of English with those of other languages. Universal constraints and markedness in learning second/foreign language pronunciation. Prerequisites: LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIN 5431 Morphology (3).

The study of linguistic methodology for determining the morphological and syntactic structures of languages. Distinct theoretical approaches to analysis will be emphasized. Recent developments in linguistics that bear on language-universal and language-

specific aspects of morphology. Prerequisite: LIN 6323.

LIN 5501 English Syntax (3). This course will focus on syntactic analysis of English. Although the course itself is non-theoretical, it uses a variety of underlying theoretical approaches to train students in syntactic analysis. (F,S)

LIN 5574 Languages of the World (3). Introduces the student to the richness of human linguistic diversity while demonstrating concurrently the underlying universality of human language. Prerequisite: LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIN 5601 Sociolinguistics (3). Principles and theories of linguistic variation with special attention to correspondences between social and linguistic variables. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5603 Language Planning: Linguistic Minority Issues (3). Introduction to the field of language planning. Minority linguistic issues in developing and developed nations: official languages, endangered languages, and language as problem and/or resource. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5604 Spanish in the United States (3). An examination of the sociolinguistic research into Spanish in the U.S.: varieties of Spanish, language attitudes, language contact and change, and aspects of language use. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5613 Dialectology (3). The geography of language variation: linguistic geography, atlases, national and regional studies. Dialectology within a modern sociolinguistic framework; research approaches. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5625 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5715 Language Acquisition (3). The study of the processes underlying normal first-language acquisition. The focus is on the development of the subsystems of language (i.e., the phonological, morphological, syntactic, and semantic subsystems) in the child's

growing command of his or her native language.

LIN 5720 Second Language Acquisition (3). Research, theories, and issues in second language acquisition. Topics include the Monitor Model, the role of the first language, motivation, age, individual differences, code-switching, and the environment; affective variables and attitudes.

LIN 5732 Speech Errors and Linguistic Knowledge (3). This course focuses on the nature of linguistic errors produced by speakers in their native languages. Students will read research on errors produced by adult native speakers of a language, on first-language errors of children, and on errors made by persons acquiring a second language.

LIN 5733 Methods of Teaching Accent Reduction (3). Theory and methods regarding the teaching of pronunciation to non-native speakers of a language. Hands-on practice in helping non-native speakers improve their pronunciation. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5734 Teaching Linguistics (1). Introduces graduate students to pedagogical issues and strategies in the teaching of linguistics. Topics include textbook selection, writing syllabi, student assessment, and professional ethics. Prerequisite: Graduate standing.

LIN 5748 Survey of Applied Linguistics (3). Application of linguistics to problems in many fields, such as literature, translation, criminal justice, speech pathology, computer science, communications, public policy, and language instruction. Prerequisite: LIN 3010 or LIN 3013 or LIN 5018 or the equivalent.

LIN 5760 Research Methods in Language Variation (3). Research in sociolinguistics, dialectology, bilingualism: problem definition, instrument design, data collection and analysis, including sampling techniques and statistical procedures. Prerequisite: LIN 5601, LIN 5625, LIN 5613 or other course in variation.

LIN 5825 Pragmatics (3). Study of the relationships between language form, meaning, and use. Special emphasis on speech act theory. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5934 Special Topics in Linguistics (3). Content to be

determined by instructor. May be repeated for credit when content changes. Prerequisite: LIN 3010, LIN 3013, or LIN 5018.

LIN 6323 Phonology (3). The study of phonological processes in languages and linguistic methodology for phonological analysis. Emphasis will be placed on recent theoretical questions concerning such issues as the abstractness of underlying forms, the naturalness of processes, and the relevance of markedness to a phonological description. Prerequisite: LIN 5206, Phonetics. (S)

LIN 6510 Syntax I (3). 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: LIN 3010, LIN 3013, LIN 5018 or the equivalent. (S)

LIN 6520 Syntax II (3). In-depth analysis of contemporary theories of syntax. May be repeated for credit with content changes. Prerequisite: LIN 6510. (F)

LIN 6571 Discourse Analysis (3). The study of the organization of language above the sentence level, such as conversational interactions and written texts. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 6572 Structure of a Non-Indo-European Language (3). An in-depth study of the structure of a non-Indo-European language. The particular language to be studied will be varied from semester to semester. Course may be repeated. Prerequisites: LIN 5018, LIN 5206, LIN 5222, and a course in syntax.

LIN 6602 Language Contact (3). A study of the language changes that occur when two or more languages come into contact with one another. The course will also examine the characteristics of the individuals and communities involved in such contact.

LIN 6706 Current Research Methods in Psycholinguistics (3). Review of current research in psycholinguistics, including adult production and comprehension, first and second language acquisition, and language disorders. Students conduct original research in one of these areas.

Prerequisite: LIN 3010, LIN 3013, or LIN 5018 or the equivalent.

LIN 6805 Semantics (3). The study of linguistic semantics. Language-universal and language-specific properties of the semantic structure of words and sentences will be considered. Students will be exposed to a variety of approaches to the study of meaning. Prerequisite: Introductory course in Linguistics or Permission of the instructor. (S)

LIN 6905 Independent Study (VAR). This course is designed for students who wish to pursue specialized topics in advanced Linguistics: phonetics, phonology, morphology, syntax, semantics, psycholinguistics, historical linguistics, or language contact. Prerequisite: Introductory course in Linguistics or Permission of the instructor.

LIN 6934 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of the Department required.)

LIN 6937 Seminar in Linguistics (3). Topics vary each semester. Prerequisite: A previous course in the same sub-area of Linguistics.

LIN 6971 Thesis (1-6). Prerequisite: Completion of all other requirements for the M.A. degree in Linguistics.

Mathematics

Enrique Villamor, *Professor and Chairperson*

Kaushal Ajitabh, *Assistant Professor*

Gerardo Aladro, *Associate Professor*

Shamita Dutta Gupta, *Assistant*

Professor

Julian Edward, *Associate Professor*

Domitila Fox, *Instructor*

Susan Gorman, *Instructor*

Steven M. Hudson, *Associate*

Professor

George Kafkoulis, *Associ te*

Professor

Shinar Kouranbaeva, *Assistant*

Professor

Mark Leckband, *Associate Professor*

Thomas Leness, *Assistant Professor*

Bao Qin Li, *Associate Professor*

Diana McCoy, *Instructor*

Abdelhamid Meziani, *Professor*

Richard Nadel, *Instructor*

Taje Ramsamujh, *Associate Professor*

David Ritter, *Associate Professor*

Michael Rosenthal, *Instructor*

Dev K. Roy, *Associate Professor*

Richard L. Rubin, *Associate*

Professor

Mitch Rudominer, *Assistant Professor*

Philippe Rukimbira, *Associate*

Professor

Anthony C. Shershin, *Associate*

Professor

Minna Shore, *Instructor*

Theodore Tachim Medjo, *Assistant*

Professor

Graham Taylor, *Assistant Professor*

John Zweibel, *Associate Professor*

Master of Science in Mathematical Sciences

Admission

The following are in addition to the University's graduate admission requirements:

1. Bachelor's degree in mathematics, applied mathematics or mathematical sciences from an accredited university or college.

2. A 'B' average or higher in upper division mathematics courses.

3. Graduate Record Examination taken within the past five years, with at least 650 on the quantitative portion and 500 on each of the other two parts.

4. Three letters of recommendation concerning the candidate's achievement and potential, from persons familiar with the candidate's previous academic performance.

5. Approval of the Graduate Committee.

Core Courses

The student must complete a minimum of 24 semester hours of graduate course work. This course work must include 5 courses from the following two lists, with at least 2 from each list.

List A:

MAA 5406	Complex Analysis	3
MAA 5616	Introduction to Real Analysis	3
MAP 5316	Ordinary Differential Equations	3
MAS 5311	Graduate Algebra	3
MAS 5312	Galois Theory	3
MHF 5107	Graduate Set Theory	3
MHF 5306	Graduate Mathematical Logic	3
MTG 5326	Introduction to Algebraic Topology	3

List B:

MAD 5405	Numerical Methods	3
MAP 5236	Mathematical Techniques of Operations Research	3
MAP 5326	Partial Differential Equations	3
MAP 5407	Methods of Applied Analysis	3
MAS 5145	Applied Linear Algebra	3

Electives

The remaining 9 hours of course work will be used to fashion a coherent program of study best suited to the student's needs and interest. This requires the prior approval of the Graduate Committee and may be done in one or a combination of the following ways: a) Further work from lists A and B. b) A maximum of 2 courses of independent study, taken with Mathematical Sciences faculty. c) Graduate level course work in Engineering, Physics or Statistics.

Master's Project

The student will complete his or her graduation requirements by writing an expository paper under the direction of a faculty member. The student may earn six credit hours (MAT 5970 Master's Research) in preparing the project. Successful completion of the Master's project requires a grade of 'B' or higher, as well as approval of a committee consisting of three mathematics faculty (including the director).

Remarks: The course work must be completed with a 3.0 GPA average or higher and a grade of 'C' or higher in each course. A maximum of two courses may be transferred into the program from outside the University, subject to the approval of the Graduate

Committee. A total of 30 credit hours is required for graduation.

Course Descriptions

Definition of Prefixes

MAA-Mathematics, Analysis; MAD-Mathematics, Discrete; MAP-Mathematics, Applied.

COT 5420 Theory of Computation I (3). Abstract models of computation; halting problem; decidability and undecidability; recursive function theory. Prerequisite: MAD 3512.

COT 6400 Analysis of Algorithms (3). 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. Prerequisite: COP 3530.

MAA 5406 Complex Analysis (3). Harmonic functions, normal families, Riemann mapping theorem, univalent functions, infinite products and entire functions, elliptic functions, analytic continuation. Prerequisites: MAA 4211 and MAA 4402.

MAA 5616 Introduction to Real Analysis (3). Lebesgue Measure and Integral with applications to Integral Transforms. Prerequisite: MAS 3105, MAA 4211, MAP 4401 or MAA 4212.

MAD 5405 Numerical Methods (3). Advanced ideas and techniques of numerical analysis for digital computation. Topics include: linear and non-linear systems, ordinary differential equations, continuous system modeling techniques, and languages. Prerequisites: MAS 3105 and MAP 2302.

MAP 5236 Mathematical Techniques of Operations Research (3). 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 and MAS 3105 and either CGS 3420 or COP 2210.

MAP 5316 Ordinary Differential Equations (3). Existence and Uniqueness theorem, matrix formulation, physical applications, regular singular points, autonomous systems, Laplace transform, special topics. Prerequisites: MAA 3200, MAA 4402 and MAS 3105.

MAP 5317 Advanced Differential Equations for Engineers (3). Topics may include Bessel Functions and other special functions arising from classical differential equations, Sturm-Liouville problems, partial differential equations, transform techniques. Credit may not be counted for both MAP 4401 and MAP 5317. Credit for MAP 5317 may not be applied toward the Master's degree in Mathematical Sciences. Prerequisites: MAC 2313 and MAP 2302.

MAP 5326 Partial Differential Equations (3). Basic concepts of first and second order PDE's, application to optics and wave fronts, Cauchy problem, Laplace equation, Green's function, Dirichlet problem, heat equation. Prerequisite: MAA 4211.

MAP 5407 Methods of Applied Analysis (3). Convergence, fixed point theorems, application to finding roots of equations, normed function spaces, linear operators, applications to numerical integration, differential and integral equations. Prerequisites: MAA 4211, MAP 2302, and MAS 3105.

MAS 5145 Applied Linear Algebra (3). Concepts of finite dimensional vector spaces. Theorems that have infinite dimensional analogues and those with important applications are emphasized. Prerequisites: MAS 3105 and MAA 3200.

MAS 5311 Graduate Algebra (3). A study of the basic material on groups, rings and vector spaces. Topics include the Jordan-Holder theorem, structure of modules over Euclidean domains and canonical forms of matrices. Prerequisites: MAS 4301 or equivalent.

MAS 5312 Galois Theory (3). Extension fields, ruler and compass constructions, fundamental theorem of Galois Theory, cyclotomic and cyclic extensions, solutions of equations by radicals, selected topics. Prerequisites: MAS 5311 or Permission of the instructor.

MAT 5907 Independent Study (VAR). Individual conferences, assigned reading, and reports on independent investigations.

MAT 5921 Training in Mathematical Exposition (1). Students prepare and present supervised lectures on undergraduate mathematical topics to fellow students. Prerequisite: Graduate standing.

MAT 5970 Master's Research (1-6). Research toward preparation of master's project. Prerequisite: Permission of graduate committee.

MHF 5106 Graduate Set Theory (3). Zermelo-Frankel axioms, ordinals and cardinals, Godel's constructible universe, large cardinals, forcing and the independence of the Continuum Hypothesis and the Axiom of Choice. Prerequisites: MHF 4102 or MAA 4211 or Permission of the instructor.

MHF 5306 Graduate Mathematical Logic (3). First order languages, construction of models from constants, advanced construction of models, non-standard models, recursion theory, RE sets, Turing degrees, oracle construction. Prerequisites: MHF 4302 or Permission of the instructor.

MHF 5325 Theory of Recursive Functions (3). Turing machines, decision problems, coding, s-m-n theorem, Rice's and Myhill's theorems, oracles, degrees, finite and infinite injury constructions. Prerequisite: MHF 4302 or COT 5420.

MTG 5326 Introduction to Algebraic Topology (3). Classification of surfaces, fundamental group, homotopy type, Van Kampen theorem, simplicial complexes, introduction to homology theory. Prerequisites: MAS 4301 and MTG 4302.

STA 5446-STA 5447 Probability Theory I and II (3-3). 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 2313.

STA 6807 Queuing and Statistical Models (3). Review of probability concepts, basic probability distributions, Poisson process, queuing models, statistical models. Prerequisites: Permission of the instructor, MAC 2312 and either STA 3033 or STA 4321.

Modern Languages

Isabel Castellanos, *Professor and*

Chairperson

Aurelio Baldor, *Instructor*

Rosale Bece, *Associate Professor*

Jean-Robert Cadely, *Assistant*

Professor

Eric Camayd-Freixas, *Assistant*

Professor

Ricardo Castells, *Associate Professor*

James O. Crosby, *Professor Emeritus*

Leonel A. de la Cuesta, *Professor*

Asuncion Gomez, *Assistant Professor*

Yvonne Guers-Villate, *Professor*

Emeritus

Danielle Johnson-Cousin, *Associate*

Professor

Santiago Juan-Navarro, *Assistant*

Professor

John B. Jensen, *Professor*

Peter A. Machonis, *Associate*

Professor

Ramon Mendoza, *Professor (North*

Campus)

Marian Montero-Demos, *Associate*

Professor (North Campus)

Ana Roca, *Associate Professor*

Reinaldo Sanchez, *Professor*

Juan Torres-Pou, *Assistant Professor*

Maida Watson, *Professor*

Marcelle Welch, *Professor*

Theodore Young, *Assistant Professor*

Florence Yudin, *Professor*

Master of Arts in Spanish

Admission Requirements: To be admitted into the Master's degree program, a student must:

1. Hold a Bachelor's degree in Spanish from an accredited university or college. Special cases, such as holders of a degree in a related field, will be evaluated individually by the Department.

2. Take the Graduate Record Examination (GRE) quantitative and verbal sections. Foreign students must also take the TOEFL and attain a minimum score of 550.

3. Have attained a minimum 3.0 grade-point average (B average), during the last two years of her/his undergraduate program as determined by the FIU Admissions Office, or attain a score of at least 1,000 on the GRE.

4. Demonstrate the ability to speak Spanish with near-native fluency and to write in Spanish. Demonstrate the ability to read English with excellent proficiency. An examination may be necessary. Contact the Director of Graduate Study (305-348-2851; Modern Languages, FIU, Miami, FL 33199). Students with deficiencies will

be required to complete certain course work before beginning graduate study.

5. Submit two letters of recommendation, preferably from persons in the academic community who are in a position to comment on the applicant's suitability for graduate work, a resume, and a writing sample in Spanish, preferably a term paper or thesis, of analytical nature, on a literary subject.

6. Receive approval of the departmental graduate committee. Admission is competitive and meeting all minimum requirements does not guarantee automatic entrance into the program.

Degree Requirements

The Master's degree program consists of 33 semester hours of graduate level work. A maximum of six credits of graduate course work may be transferred into the program from other institutions, subject to the approval of the departmental graduate committee. Six core courses and three elective courses are required at the 5000- and 6000-level. Some courses have prerequisites which do not count toward the degree. All core courses in literature must be taken with or after SPW 5806. Courses taken before SPW 5806 are considered to be electives.

Core Courses (18 credits)

SPW 5806	Methods of Literary Research (<i>must be taken in the first year of study</i>)	3
SPN 5705	The Structure of Spanish	3
	One course in peninsular Spanish Literature of the 19 th or 20 th centuries.	3
	One course in either Medieval Spanish Literature or Literature of the Golden Age.	3
	Two courses in Spanish American Literature. (Colonial or 20 th century)	6

Electives

A student must take at least nine graduate credits of electives, as follows: three in Spanish or Latin American literature, and six from one or more of the following areas: Spanish or Spanish American literature, Linguistics, Translation/Interpretation, or Culture of Spain, Latin America or Hispanics in the United States.

Graduation Requirements

To receive the M.A. degree in Spanish, a student must complete all the course work with a 3.0 GPA or higher, and receive a minimum grade of 'B' in

every course. Upon completion of 27 graduate credits (core and elective courses), students will have the option of writing a thesis (equivalent to six credits), or taking two elective courses and writing a research paper. The thesis will be presented to an ad hoc committee chosen by the student and his or her advisor. The research paper must be submitted to a committee of two professors of the Department. Upon completion of 33 credits, the student will be required to take Comprehensive Examinations, based on course work and on the Department's Graduate Reading List (the exams must be passed with a minimum grade of 'B'; they may be taken no more than twice).

Doctor of Philosophy in Spanish

The doctoral program in Spanish offers students the opportunity to specialize in one of two major fields: Peninsular Spanish Literature or Spanish American Literature. Minors are available in Peninsular Spanish Literature, Spanish American Literature, and Hispanic Linguistics.

Admission Requirements

To be admitted to the doctoral program, a student must:

1. Hold a Bachelor's degree in Spanish from an accredited college or university. Special cases, such as holders of a degree in a related field, will be evaluated individually by the Department.

2. Take the Graduate Record Examination.

3. Demonstrate the ability to speak, understand, read, and write in Spanish with near-native fluency. Demonstrate the ability to speak and read in English with excellent proficiency. For students whose native language is not English, the TOEFL is required, and they must obtain a score of 550 or higher.

4. Have attained a minimum grade point average of 3.0 (B average) during the last two years of her/his undergraduate studies or attain a combined (verbal and quantitative) score of at least 1000 in the GRE. Applicants with Master's degrees are required to have a graduate GPA of 3.5. A GPA of 3.5 in graduate Spanish courses is expected in such cases.

5. Apply for graduate admission to the Admissions Office and submit to the Department of Modern Languages the following documentation: a) two letters of recommendation from former professors in the format required by the Graduate Studies Committee, b) a

resume, c) a statement of purpose in English or Spanish, addressing the candidate's goals and objectives in pursuing a doctorate in Spanish, and d) a writing sample in Spanish, preferably a term paper or thesis, of analytical nature, on a literary subject.

6. Receive approval of the departmental Graduate Studies Committee. Admission is competitive, and meeting all minimum requirements does not guarantee automatic entrance to the program.

Degree Requirements

The doctoral program consists of 90 semester hours of graduate level work beyond the Bachelor's degree, distributed as follows: 66 graduate credits of courses and 24 credits of dissertation. Students holding Master of Arts degrees in Spanish or Hispanic Studies will be considered for admission and some or all of their graduate credits may be counted toward the doctoral degree after being evaluated and approved by the Graduate Studies Committee. Students will be able to transfer a maximum of 36 graduate credits from other universities.

Core Courses (12 credits)

All core courses must be taken as graduate courses offered by the university and may not be taken as independent studies:

1. SPW 5806 Methods of Literary Research
2. SPN 5705 The Structure of Spanish
3. SPW 6718 Historiography of Literature
4. SPW 6825 Literary Theory and Criticism

Distribution Requirement (15 credits)

All students must take:

- One course in Medieval or Golden Age Peninsular Spanish Literature
- One course in Peninsular Spanish Literature of the 18th, 19th or 20th century
- One course in Colonial/19th century Spanish American Literature
- One course in 20th century Spanish American Literature

One additional course in Spanish American Literature

Major Field (18 credits)

All students must take at least 18 credits of electives in their elected field of specialization.

Minor Field (12 credits)

Twelve credits of electives in the student's chosen field (Peninsular Spanish Literature, Spanish American Literature, or Hispanic Linguistics).

Electives (9 credits)

Students may choose from graduate courses in literature, linguistics, culture, and translation/interpretation.

Dissertation (24 credits)

Graduation Requirements

To receive a Ph.D. in Spanish, a student must complete all courses with a GPA of 3.0 or higher, and receive a minimum grade of 'B' in every course. Before graduation the student must demonstrate a reading knowledge of a language other than English or Spanish, chosen by the student in consultation with her/his adviser. Upon completion of 33 graduate credits beyond the Bachelor's degree, students must take qualifying written and oral examinations which will determine whether they are permitted to continue their studies toward the doctorate or whether they should be terminated, with or without a master's degree. In the case of students registered for the master's degree, the M.A. comprehensives will also serve as a qualifying examination for the Ph.D. Following completion of most of the course work, students are required to take written and oral doctoral comprehensive examinations. They must be passed with a minimum grade of 'B' and may not be taken more than twice. A student is formally considered a doctoral candidate upon successful completion of the comprehensive examinations and the acceptance of a dissertation proposal. Students must write and successfully defend a doctoral dissertation before a committee of three faculty members, two of whom must be from the graduate program faculty.

Course Descriptions

Definition of Prefixes

FOL- Foreign Languages; FOT- Foreign Languages in Translation; FOW- Foreign Languages, Comparative Literature; FRE- French Language; FRT- French Translation; FRW- French Literature (Writings); GER- German Language; LIN- Linguistics; POR- Portuguese Language; SPN- Spanish Language; SPT- Spanish Translation; SPW- Spanish Literature (Writings).

(See English listing for additional Linguistics courses.) Application of basic language skills.

FIL 5526 Spanish Film (3). The history of film in Spain and discussions of films by the most important 20th Century directors.

FIL 5527 Latin American Film (3). The study of 20th Century films and documentaries produced by leading Latin American directors. Films are examined in relation to Latin American Society and its literary creations.

FOL 5735 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 5906 Independent Study (1-3). Project, field experience, readings, or research.

FOL 5945 Foreign Exchange Internship (0). Foreign exchange students perform graduate research in the Department of Modern Languages and English as a corequisite to their assistantship in the Modern Languages Department.

FOT 5125 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

FOT 5805 Translation/Interpretation Arts (3). The language barrier and translation and interpretation. Types, modes, and quality of T/I: philological, linguistic, and socio-linguistic theories. History of T/I from Rome to date. The impact of T/I on Inter-American developments. Prerequisite: Graduate standing or permission of the instructor.

FOW 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).

FOW 5545 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 5587 Comparative Studies (3). Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.

FOW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by students and teacher.

FOW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

FRE 5060 Language for Reading Knowledge I (3). 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 II (3). Emphasis on translation of materials from the student's field of specialization. Prerequisite: FRE 5060 or equivalent.

FRE 5508 La Francophonie (3). Analysis of the different varieties of French spoken outside of France. Includes Quebec French, African French, and French Creoles. Also examines the political alliance of Francophone countries. Credit will not be given for both FRE 4503 and FRE 5508. Prerequisites: FRE 3780 or LIN 3010 or LIN 3013.

FRE 5735 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of Department required.)

FRE 5755 Old French Language (3). Introduction to the phonology, morphology, and syntax of the Old French language. Reading and analysis of the 12th and 13th century texts in their original. Comparison of major medieval dialects. Prerequisite: FRE 4840 or FRE 5845.

FRE 5845 History of the Language I (3). The internal and external history of the French language from Latin to Old French. Examination of some of the first texts written in French. Credit will not be given for both FRE 4840 and FRE 5845. Prerequisite: FRE 3780.

FRE 5846 History of the Language II (3). External and internal history of the French language from 1400 to the present. Examination of first dictionaries and grammars of French. Survey of recent linguistic legislation concerning the French language. Credit will not be given for both FRE 4841 and FRE 5846.

FRE 5855 Structure of Modern French (3). Systematic study of the phonology, morphology, syntax, and lexicon of Modern French. Taught in English. Credit will not be given for both FRE 4850 and FRE 5855.

FRE 5908 Independent Study (1-3). Project, field experience, readings, or research.

FRT 5805 Translation/Interpretation Arts (3). Techniques of professional translation and interpretation. Prerequisite: FRT 4801.

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 (3). Content and objectives to be determined by student and instructor.

FRW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

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.

HAI 5235 Haitian Creole Seminar (3). A study of the phonological and morpho-syntactic structures of Haitian Creole. Patterns of language usage and attitude. Prerequisite: Graduate standing.

LIN 5207C Acoustic Phonetics (3). Introduction to principles of acoustic and instrumental phonetics, including the physics of speech sounds and use of the sound spectrograph and other instruments. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent, plus one additional course in phonetics or phonology. Corequisite: One of the prerequisites may be counted as a corequisite.

LIN 5601 Sociolinguistics (3). Principles and theories of linguistic variation with special attention to correspondences between social and linguistic variables. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5603 Language Planning: Linguistic Minority Issues (3). Introduction to the field of language planning. Minority linguistic issues in developing and developed nations: official languages, endangered

languages, and language as problem and/or resource. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5604 Spanish in the United States (3). An examination of the sociolinguistic research into Spanish in the U.S.: varieties of Spanish, language attitudes, language contact and change, and aspects of language use. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5613 Dialectology (3). The geography of language variation: linguistic geography, atlases, national and regional studies. Dialectology within a modern sociolinguistic frame work; research approaches. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5625 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5720 Second Language Acquisition (3). Research, theories, and issues in second language acquisition. Topics include the Monitor Model, the role of the first language, motivation, age, individual differences, code-switching, and the environment; affective variables and attitudes.

LIN 5760 Research Methods in Language Variation (3). Research in sociolinguistics, dialectology, bilingualism: problem definition, instrument design, data collection and analysis, including sampling techniques and statistical procedures. Prerequisite: LIN 5601, LIN 5625, LIN 5613 or other course in variation.

LIN 5825 Pragmatics (3). Study of the relationships between language form, meaning, and use. Special emphasis on speech act theory. Prerequisites: LIN 3010, LIN 3013, or SPN 3733.

LIN 6571 Discourse Analysis (3). The study of the organization of language above the sentence level, such as conversational interactions and written texts. Prerequisite: LIN 3010, LIN 3013, or the equivalent.

LIN 6934 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of the Department required.) (See English listing for additional Linguistics courses.)

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 Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisite: SPN 5060 or the equivalent.

SPN 5525 Spanish American Culture (3). A graduate survey of the major artistic phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisite: Graduate standing and permission of the instructor.

SPN 5536 Afro-Cuban Culture (3). Explores the role played by blacks in Cuban culture. Issues studied include: Afro-Cuban religions, languages, and music, as well as the Afro-Cuban presence in literature and the arts.

SPN 5537 Special Topics in Afro-Hispanic Culture (3). Close examination of various topics related to the culture of African diaspora groups in the Hispanic world.

SPN 5705 The Structure of Spanish (3). An introduction to Spanish linguistics. Topics include Spanish phonetics, phonology, morphology, and syntax. Students who have previously taken Syntactic Structures of Spanish and/or Sound Structure of Spanish will not receive credit for this course. Prerequisites: LIN 3010, LIN 3013, or SPN 3733.

SPN 5725 Syntactic Structures of Spanish and English (3). An in-depth study of syntactic structures in Spanish and English, with an emphasis on how linguistic theory can account for the similarities and differences between the two languages. Prerequisites: LIN 3010, LIN 3013, or SPN 3733.

SPN 5805 Morphological Structures of Spanish and English (3). A survey of the morphologies of Spanish and English. Topics include the difference between isolating and synthetic languages, rich vs. impoverished agreement, and syntactic ramifications of morphology. Prerequisites: LIN 3010, LIN 3013, or SPN 3733.

SPN 5807 Syntactic Structures of Spanish (3). The study of syntactic structures in Spanish, topics include different syntactic approaches to current issues in Spanish syntax.

Prerequisites: LIN 3010, LIN 3013, or SPN 3733.

SPN 5824 Dialectology of the Spanish Caribbean (3). Study of varieties of Spanish used in the Caribbean area, including Miami-Cuban Spanish. The course will take historical and contemporary perspectives and will involve research among informants in South Florida. Prerequisites: LIN 3010, LIN 3013, or SPN 3733.

SPN 5845 History of the Language (3). Historical development of the Spanish language, primarily from the point of view of internal linguistic change. Spanish as an example of general processes of language development. Prerequisites: LIN 3010, LIN 3013, or SPN 3733.

SPN 5908 Independent Study (1-3). Project, field experience, readings; or research.

SPN 6505 Spanish Culture (3). Selected development in language, literature, art, music, film, and the social institutions of Spain. Prerequisites: Graduate standing and permission of the instructor.

SPN 6535 Hispanic Culture in the U.S. (3). Readings in literature, culture, and language to illustrate the experience of the major Hispanic groups in the United States. Prerequisites: Graduate standing and permission of the instructor.

SPN 6795 Phonological Structure of Spanish (3). Approaches to current issues in Spanish phonology. Linguistic methodology for the analysis of phonological processes in Spanish. Prerequisite: Graduate standing.

SPN 6825 Hispanic Dialectology (3). A study of the principal varieties of the Spanish language in the Spanish-speaking world, with special emphasis on Latin American Spanish. Prerequisite: Graduate standing.

SPN 6930 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of the Department required.)

SPN 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of Department.

SPN 7972 Dissertation Research (1-10). Research toward the completion of a doctoral dissertation. Repeatable. Prerequisite: Admission to Doctoral Candidacy.

SPT 5118 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

SPT 5715 Hispanic Women Writers in Translation (3). Readings and analysis of Spanish and Spanish American women writers in translation. Emphasis on cultural and linguistic considerations involved in the translation of literary texts. Prerequisite: Graduate standing or permission of the instructor.

SPW 5135 Spanish American Literature for Teachers (3). Overview of major trends in Spanish American literature. Especially designed for school teachers and majors in modern language education. Not for M.A. or Ph.D. Spanish majors. Prerequisite: Permission of the instructor.

SPW 5155 Comparative Studies (3). Cross-over and distinctiveness in a multilanguage problem, period, or aesthetic.

SPW 5237 The Traditional Spanish American Novel (3). Study and analysis of the traditional Spanish novel as a form of art, from 19th century Lizardi's "El periquillo sarriento", to 1950. The novels and authors studied are representative of 'costumbrismo', 'romanticismo', 'naturalismo', 'modernismo', and 'criollismo'.

SPW 5277 Twentieth Century Spanish Narrative (3). Analysis of the Spanish novel from Ferlosio's "El Jarama" to the present. The perspective will be focused within historical, social, and artistic context. Representative authors such as Cela, Martin Santos, Umbral, Delibes, Benet, Goytisolo, and others will be included.

SPW 5286 Contemporary Spanish American Novel (3). A study of the Spanish American Novel from 1950. The course will intensively and extensively focus on the novelists who are best known for their innovations, defining and analyzing the qualities which give originality and newness both in themes and language.

SPW 5346 Poetry of Jorge Guillen (3). Selected readings from the five volumes of "Aire nuestro". Emphasis on the techniques of close reading and explication. Related selections from Guillen's literary criticism.

SPW 5358 Graduate Seminar: Prose and Poetry of Jorge Luis Borges (3). Close readings of short stories and poetry. Emphasis on Borges's linguistic and cultural pluralism and the interplay of philosophy with fabulation.

SPW 5359 Graduate Seminar: Poetry of Pablo Neruda (3). Chronological examination of the major works of Chile's Nobel Laureate. Related readings from Neruda's *Memories*. Emphasis on the poet's linguistic and aesthetic innovations.

SPW 5387 Women and Poetry (3). Women as poets and the poeticized. Close reading of Peninsular and Latin American texts, 16th - 20th Century. Students examine the contributions of women and how they have been represented in poetry. Prerequisite: 4000 or 5000 level course in Hispanic poetry.

SPW 5405 Medieval Spanish Literature (3). Readings in Medieval literature of Spain including the epic, the learned poetry of the XIIIth and XIVth Centuries, and the literature of Juan II's court. Prerequisites: Graduate standing and permission of the instructor.

SPW 5407 The Renaissance in Spain (3). Readings in the literature and cultural expressions of the Spanish Renaissance. Prerequisites: Graduate standing and permission of the instructor.

SPW 5425 Quevedo: Poetry (3). Close reading of selected poems by Spain's greatest baroque poet and creator of modern Spanish satire, including poems on love, death, and metaphysical concerns, and a wide range of humorous poems.

SPW 5426 Quevedo: Prose Satire (3). Close reading of selected satires in prose by Spain's greatest baroque satirist and creator of modern Spanish satire. Includes Quevedo's picaresque novel "El Buscón", and his "Suenos", or "Visions of Hell".

SPW 5428 Theatre in Calderon and Lope (3). The creation of verbal theatrical technique in the Baroque masters Calderon de la Barca and Lope de Vega.

SPW 5436 Poetry Writing in Spanish (3). Readings from Spanish and Latin American texts; description and recreation of traditional and experimental metrics. Students will exchange critiques of original poems. Prerequisites: sample of unpublished poems; word-processing literacy; permission of the instructor.

SPW 5475 19th Century Latin American Literature (3). A study of the main literary works of Spanish speaking 19th Century Latin America: Romanticism, Realism, Naturalism and Modernism. Prerequisites: Upper level and graduate standing.

SPW 5486 Modern Spanish Women Writers (3). Analysis of narrative works by Spain's most representative women writers from the 19th century to the present. Emphasis on the novel. Includes works by Pardo Bazan, Matute, Laforet, Martin Gaité. Prerequisites: Graduate standing or permission of the instructor.

SPW 5515 Advanced Studies in Hispanic Folklore (3). Studies the oral literary and linguistic tradition of the Hispanic world. Prerequisites: Graduate standing and permission of the instructor.

SPW 5535 Spanish Romanticism (3). Study of Spanish Romanticism through the analysis of major literary figures of the movement: Larra, Zorrilla, Espronceda, Castro and Becquer. Prerequisite: Graduate standing.

SPW 5546 Hispanic Neoclassicism (3). Study of major Spanish and Spanish-American Neoclassic writers: Cadalso, Moratin, Jovellanos, Carrio de la Vandra, mier and Lizardi. Prerequisite: Graduate Standing.

SPW 5556 Spanish Realism and Naturalism (3). Readings in Spanish XIXth Century Novel of Realism and Naturalism including Alarcon, Perez Galdos, Pardo Bazan, Clarin and Blasco Ibanez. Prerequisites: Graduate standing and permission of the instructor.

SPW 5575 Spanish American Modernism (3). An in-depth study of prose and poetry of one of the most important periods of Spanish American literature, focusing on Marti, Dario, Najera, Casals, Silva, Valencia, Lugones, and Herrera y Reissig.

SPW 5585 Learning Technology in Spanish Pedagogy and Research (3). Exploration of the role of technology in today's language and literature learning environment. Overview of the WWW, Network-based communication, and electronic databases related to Hispanic language and literature. Prerequisite: Graduate standing or advanced undergraduate with permission of the instructor.

SPW 5595 Magical Realism and Typologies of Non-Realist Fiction (3). Theories of magical realism, fantastic and non-realist fiction, focusing on narrative technique. Authors may include Onetti, Borges, Cortázar, Asturias, Carpentier, Rulfo, Márquez, Allende or others. Prerequisite: Graduate standing or permission of the instructor.

SPW 5606 Cervantes (3). A comprehensive introduction to the masterpieces of Cervantes as the creator of the modern novel, and to critical theories about his art.

SPW 5729 Major Writers of the Generation of '98 (3). Study of the social and political circumstances of Spain at the turn of the XIX Century, and analysis of the work of Ganivet, Azorin, Baroja, Machado, Maizteu, Unamuno and Valle-Inclan. Prerequisite: Graduate standing or permission of the instructor.

SPW 5735 Hispanic Literature of the United States (3). Readings in the literature of Hispanics in the United States. Prerequisites: Graduate standing and permission of the instructor.

SPW 5756 Mexico in Poetry (3). Close reading of modern poets; discussion of essays on Theory and Practice. Students examine national representation in myth, symbol and metaphor. Prerequisites: 4,000 or 5,000 level course in Culture of Literature.

SPW 5781 The Representation of women in Spanish Literature and Film (3). Study of cinematographic adaptations of Spanish novels, plays and short stories. Analyzes the representation of the female subject in both literary and filmic works. Prerequisite: Graduate standing or permission of the instructor.

SPW 5786 Spanish American Women Writers (3). Through a selection of poems, plays and novels, this course studies Spanish American women production from Independence to the present times. Prerequisite: Graduate students only.

SPW 5806 Methods of Literary Research (3). Introduction to bibliography, methods of research, the composition of essays, rhetoric, and the presentation of documentation. Theory of literary criticism, and its practical application to texts in Spanish.

SPW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by student and instructor.

SPW 5XXX Textual Reading and Analysis (3). Studies how texts are constructed, the role played by Poetics and Rhetoric in their formulation, and the context in which they were produced. Prerequisite: Graduate standing.

SPW 6238 Spanish American Historical Novel (3). The evolution of the historical novel in Spanish America from the Romantic period to the present. Stylistic, literary, and theoretical analyses of selected traditional and recent historical novels. Prerequisite: Graduate standing.

SPW 6216 Golden Age Prose (3). Analysis of representative prose works from 16th and 17th century Spain. Emphasis will be on the picaresque novel, the pastoral novel, autobiography, and the short story. Prerequisite: Graduate standing.

SPW 6335 Golden Age Poetry (3). An examination of major poetics (1450-1650); emphasis on historical/cultural contexts. Prerequisite: Graduate standing.

SPW 6345 Twentieth Century Spanish Poetry (3). Close reading of two of the greatest poets of the 20th century (Jorge Guillen; F. Garcia Lorca) and of major voices from the Generation of 1927 and from post-Franco Spain. Emphasis on cultural contexts. Prerequisite: Graduate standing.

SPW 6366 Studies in the Spanish American Essay (3). Stylistics of the essay, neoclassic to postmodern, as reflecting the intellectual spirit of the times. Analysis of arguments and methods of cultural epistemology in Bolivar, Marti, Paz and others. Prerequisite: Graduate standing.

SPW 6367 Prose and Poetry of Jose Marti (3). Study of Jose Marti's prose and poetry within the aesthetic and ideological contexts which characterize the discourse of Spanish American Modernism. Prerequisite: Graduate standing.

SPW 6368 19th Century Spanish-Caribbean Narrative(3). Studies the most popular literary trends of 19th century literature through the works of various Spanish-Caribbean writers. Prerequisite: Graduate standing.

SPW 6389 Cuban Novel and Short Story (3). Critical reading of representative texts of the Cuban novel and short story from XIX century to contemporary narrative expressions, within historical, social and artistic context. Prerequisite: Graduate standing.

SPW 6395 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 6495 The Latin American Experience Literature and Film (3). Literary and cinematic representations of significant periods in the formation of latin American politics, culture, and identity. Prerequisite: Graduate standing.

SPW 6716 Seminar in Galdós (3). An in-depth study of the novels by Benito Pérez Galdós. Stylistic and theoretical analysis of a selection of Galdós' works, especially his novelas españolas contemporáneas (contemporary Spanish novels). Prerequisite: Graduate standing.

SPW 6718 The Historiography of Literature (3). Methodology and theory in the writing of literary history: periodization, continuity and change, literature in intellectual history. Prerequisite: Graduate standing.

SPW 6775 Literature of the Spanish Caribbean (3). Close readings of representative texts of the literature of the Dominican Republic, Cuba and Puerto Rico. Emphasis on the characteristics of the literary discourse within the context of a regional literature. Prerequisite: Graduate standing.

SPW 6825 Literary Theory and Criticism (3). Study of the theoretical foundation of literature and contemporary systems of critical approach to literary discourse. Prerequisite: Graduate standing.

SPW 6936 Graduate Seminar (3). Topic and approach to be determined by students and instructor. Prerequisite: Approval of the Department.

SPW 7979 Pre-Dissertation Research (1-9). Enables students to concentrate on completion of their dissertation prospectus during the term in which they take Ph.D. comprehensive exams. Prerequisite: Completion of all other Ph.D. coursework.

School of Music

Frederick Kaufman, *Professor and Director (composition)*
John Augenblick, *Associate Professor and Director of Choral Studies (choral)*
Kristine Burns, *Assistant Professor (composition/electronic music)*
Gary Campbell, *Assistant Professor (saxophone/jazz studies)*
John Cuciurean, *Assistant Professor (theory)*
Robert Davidovici, *Professor/Artist-in-Residence (violin)*
Robert B. Dundas, *Assistant Professor Director of Voice/Opera Studies (voice/opera)*
J. Richard Dunscomb, *Professor (jazz studies)*
Karen Fuller, *Lecturer and Director of Performing Arts Production*
Orlando J. Garcia, *Professor and Director, Graduate Programs (composition)*
Kemal Gekic, *Professor/Artist-in-Residence (piano)*
Roby George, *Assistant Professor and Director of Wind Studies*
Clair McElfresh, *Professor Emeritus (choral)*
Michael Orta, *Assistant Professor (jazz piano)*
Carlos Piantini, *Professor and Director of Orchestral Studies (orchestra/conducting)*
Patricia Reeves-Johnson, *Visiting Instructor, (music education)*
Joseph Rohm, *Associate Professor (theory)*
Miguel Salvador, *Associate Professor (piano)*
Arturo Sandoval, *Professor/ Artist-in-Residence (trumpet)*
Myer Savits, *Assistant Professor (music education)*
Violet Vagramian-Nishanian, *Professor (theory)(history), and Director of Piano Accompanying*
Michael Wagner, *Professor (music education)*
Miami String Quartet
Ivan Chan, *(violin/chamber music)*
Chauncey Patterson, *(viola/chamber music)*
Cathy Meng Robinson, *(violin/chamber music)*
Keith Robinson, *(cello/chamber music)*
Adjunct Instructors:
Keith Aleo, *percussion*
Teresa Ancaya, *vocal coach accompanist, piano*
Giorga Bernstein, *orchestral literature*
Jay Bertolet, *tuba*

Lindsey Blair, *jazz guitar*
Robert Craft, *distinguished professor of music*
John Dee, *oboe*
Jodie DeSalvo, *accompanist*
Loretta Dranoff, *piano*
Marcia Dunscomb, *jazz history*
Deborah Fleisher, *harp*
Felix Gomez, *jazz piano*
Luis Gomez-Imbert, *siring bass/new music ensemble*
Frank Gonzalez, *sound reinforcement*
Robert Grabowski, *jazz history/sound engineer*
Paul Green, *clarinet/chamber music*
James Hacker, *trumpet/chamber music*
Geoffrey Hale, *bassoon*
Mark Hetzler, *trumpet*
Jonathan Joseph, *jazz drums*
Suzanne Kirton, *flute*
Adelina Krivosheina, *coaching/accompanying*
Jose Lopez, *piano/accompanying*
Sam Lussier, *jazz arranging/jazz lab band*
Dean Manning, *organ technician*
Dennis Marks, *jazz bass*
Greg Miller, *horn*
Louis Mowad, *classical guitar*
Hector Nesiosup, *Latin percussion*
Mark Nerenhausen, *music operations*
Alan Ngim, *accompanist*
Nicky Orta, *jazz bass, electric*
Edward Pierson, *voice*
Nobleza Pilar, *voice*
Errol Rackipov, *jazz vibes*
Joann Schulte, *organ*
Henry Skolnick, *bassoon/chamber music*
Lee Stone, *string techniques*
Alfredo Triff, *music of the world*
Jose Valerio, *saxophone*
Victor Payano, *saxophone*

Master of Music

The FIU School of Music offers an M.M. degree with specialization in the following areas: music theory/composition, jazz studies, applied (winds/percussion, strings, voice, piano, piano accompanying), and conducting (choral, orchestral, wind) and performing arts production. For more information please contact the FIU School of Music.

Required Areas

*Music Theory (Analytical Techniques course required in all areas except jazz and performing arts production)¹ 3
 *Music History/Literature¹ 3
 *Ensembles/applied/conducting 2
 The above eight credits are included in the 36 credits required for each area of concentration.

**A placement exam is required before students are allowed into these courses. Remedial work may be required before these courses may be taken. A required History course is selected in consultation with area advisor. All students, except jazz majors, must take Analytical Techniques as the required theory course.

¹Requirements for jazz majors are in the jazz area.

²A jazz placements exam is required. Analytical Techniques is not required for jazz majors.

Areas of Concentration

I. Composition (36 credit hours)	
Composition (3 semesters - 2 credits each)	6
Composers Forum/Workshop (4 semesters 0 credits each)	0
Electronic Music (2 semesters pending placement)	6
Analytical Techniques	3
Theory Elective: Comprehensive Theory, Seminar (20 th c st. quartets, the NY school), Set Theory, Schenkerian Analysis	6
Theory Elective II: Strict Composition or Modal Counterpoint or Advanced Orchestral	3
Graduate Music Electives	3
Music History/Literature Elective Thesis/Recital (includes private lessons and 45 minute recital of student's compositions during last semester)	6
II. Performance - Piano,	
Applied Piano (36 credit hours)	
Applied Piano (3 semesters - 2 credits each)	6
Accompanying (2 semesters - 1 credit each)	2
Chamber Music (2 semesters - 1 credit each)	2
Thesis/Recital (includes private lessons and recital during last semester)	6
Analytical Techniques	3
Keyboard Literature	3
Large Ensemble (2 semesters - 1 credit each)	2
Graduate Music Electives	12
Piano Accompanying (36 credit hours)	
Applied Piano (3 semesters - 2 credits each)	6
Instrumental Accompanying	2
Vocal Accompanying	2
Chamber Music (2 semesters - 1 credit each)	2
Thesis/Recital (includes private lessons and recital during last semester)	6
Analytical Techniques	3
Keyboard Literature	3
Italian Diction	1

MUC 5406 Electronic Music IV (2). An advanced course in computer music providing students hands-on experience with recently developed hardware and software for the creations of music. Prerequisite: MUC 4400.

MUC 5407 Electronic Music V (2). Students develop new hardware and/or software for uses related to musical composition. Prerequisite: MUC 5406.

MUC 5935 Composition Forum (0). Student composers present their work for critique by faculty and topics relevant to composition are presented by faculty and guests. Prerequisite: Admission into the graduate composition program.

MUC 6251 Graduate Music Composition (1-3). The writing of evolved musical compositions with regard to each student's strengths and aesthetic development. Graduate standing in Music Education and/or permission of the instructor.

MUC 6305 Electronic Music Lab I (2). Exploration of the electronic medium including the history of electronic music, digital studio techniques, analog studio techniques, digital synthesis and analog synthesis. Prerequisites: MUC 1342 or Permission of the instructor.

MUC 6306 Electronic Music Lab II (2). Continuation of Electronic Music Lab I with an emphasis on advanced MIDI applications including sampling, digital sequencing, digital signal processing and interactive MIDI software. Includes one large composition project. Prerequisite: MUC 6401.

MUC 6405 Electronic Music Lab III (2). Special projects in advanced electronic music programming environments including Csound, MAX, Interactor, HMSL and CHANT. Includes one large composition project. Can be repeated 4 times. Prerequisite: MUC 6402.

MUE 5921 Choral Conducting Workshop (3). The study of various topics related to choral literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5922 String Workshop (3). The study of various topics related to string literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5923 Instrumental Conducting Workshop (3). The study of various topics related to instrumental ensemble

literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5924 Jazz Workshop (3). The study of various topics related to jazz literature, conducting and techniques. Prerequisite: Permission of the instructor.

MUE 5928 Workshop in Music (3). Applications of materials and techniques in music in a laboratory or field setting.

MUG 5105 Advanced Conducting Techniques (1). An extension of form and analysis, with interpretation both in instrumental and choral conducting. Twentieth century scoring and symbol interpretation will be studied in depth, with actual conducting experience required.

MUG 5205 Graduate Applied Choral Conducting (2). Advanced study of choral conducting, including gesture, rehearsal techniques, and repertoire. Prerequisite: Graduate standing and permission of the instructor.

MUG 5307 Graduate Applied Instrumental Conducting (2). Advanced study of wind conducting, including gesture, rehearsal techniques, and repertoire. Prerequisite: Graduate standing and permission of the instructor.

MUG 5935 Conducting Seminar (1). An examination of the principle issues of conducting, emphasizing score reading and study, rehearsal, interpretation, and contemporary techniques. Prerequisite: Graduate standing and/or permission of the instructor.

MUH 5025 History of Popular Music in the U.S. (3). Overview of Afro-American and Euro-American popular music and its historical development. Examination of musical style and social context in lecture-discussion format with film and video.

MUH 5057 Music of the World (3). Survey of folk, popular and classical musical traditions from around the world. Examination of musical style and social context with film and performance demonstrations.

MUH 5065 Latino Music in the United States (3). Survey of Latin American musical traditions brought through immigration. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 5066 Music of Mexico and Central America (3). A survey of folk, popular and classical musical traditions in the region. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUII 5067 Music of the Caribbean (3). Survey of folk, popular and classical musical traditions and their ongoing connection with Caribbean populations in the U.S.. Class includes film and performance demonstrations.

MUH 5375 Twentieth Century Music: 'New Dimensions' (3). A technical study of music since 1900. Lectures on style plus demonstrations and practical application will be supplemented with recordings and analysis.

MUH 5546 Music of the Americas (3). An exploration of the folk, popular, and art music of Latin America.

MUH 5685 History of Music Seminar I (1-3). Examination of music history achievements from Antiquity, Medieval, Renaissance and Baroque periods. Music structures and composers are examined throughout these periods, works and styles. Prerequisite: Graduate standing.

MUH 5686 History of Music Seminar II (1-3). Examination of music history achievements from Pre-Classical, Classical, Romantic to the 20th century. Evolution of music through the works of major composer's individual styles.

MUH 5815 Jazz History: The Innovators (3). The work of four artists whose innovations have profoundly defined the jazz idiom from its beginning through the present day-Duke Ellington, Charlie Parker, Miles Davis, and John Coltrane.

MUL 5402 Keyboard Literature (3). Survey of keyboard literature from antiquity through the twentieth century. Emphasis on the evolving role of the keyboard in music history.

MUL 5456 Wind Instrument Literature (3). The history and development of Wind Instrument Literature from ca. 1650 to the present day. Music appropriate for all levels of instruction from middle school through college level is included. Prerequisite: Advanced/graduate standing.

MUL 5505 Symphonic Literature (3). The study of the symphony and the symphonic tone poem from its origin in

the Baroque period to the twentieth century. Prerequisite: Graduate standing.

MUL 5645 Choral Literature (3) A survey of sacred and secular choral literature from the Middle Ages to the present. Emphasis on stylistic analysis and performance practice for each style period. Includes score study, aural analysis of recorded performances and in-class performances. Prerequisite: Permission of the instructor.

MUL 5XXX Survey of Organ Literature (3). Survey of organ literature, history, performance practice and organ design. Includes historic sound recordings and in-class performance. Prerequisites: Permission of Instructor.

MUL 5XXX Vocal Literature I (2). A survey of solo vocal literature from the 17th century to the late 18th century. Emphasis will be placed on a discussion of ornamentation and performance-practice and comparisons of editions.

MUL 5XXX Vocal Literature II (2). The German Lied and its poetry. Emphasis will be placed on a study of the poets and their poetry, important facts of the composers' lives and times and other musical and cultural developments.

MUL 5XXX Vocal Literature III (2). The French Melodie and its poetry. Emphasis will be placed on a study of the poets and their poetry, their styles and schools, the composers' lives and times and other musical and cultural developments.

MUL 5XXX Vocal Literature IV (2). Twentieth-century art song. Emphasis will be placed on the rise of the nationalist schools, the development of atonalism and other modern schools of thought.

MUM 5705 Advanced Business of Music (3). Topics include strategic planning, employee development, and decision making. Also includes a study of publishing, collection agencies, creative unions, and contracts with composers and publishers. Prerequisite: MUM 4301 and permission of graduate advisor.

MUM 5715 Performing Arts Production I (2). Focus on the various aspects of performing arts production. Students attend performances of every possible genre of performing arts and critique the production and the venue.

Prerequisite: Permission of graduate advisor.

MUM 5725 Live Music Operations I (2). How promoters and producers project a profit margin and the ability to oversee a profit; considering overhead, scheduling, accommodations, concessions, sound and light. Prerequisite: Permission of the graduate advisor.

MUM 5726 Live Music Operations II (3). Continuation of MUM 5725, Live Music Operations I. Emphasis on promoters', producers', and managers' ability to project a profit margin. An on-campus production is required as the final project. Prerequisite: MUM 5725 and permission of the graduate advisor.

MUM 5795 Music Production Laboratory I (1). Students are assigned to work in the production of 10-15 individual concert productions. The productions are varied and provide the students the opportunity to put in practice work learned in the classroom. Prerequisite: Permission of the graduate advisor.

MUM 5796 Music Production Laboratory II (1). A continuation of Music Production Lab I. Students are assigned to work in the production of 10-15 individual concert productions. Prerequisite: MUM 5795 and permission of the graduate advisor.

MUM 5797 Music Production Laboratory III (1). A continuation of Music Production Lab II. Students are assigned to work in the production of 10-15 individual concert productions. Prerequisite: MUM 5796 and permission of the graduate advisor.

MUM 5946 Performance Arts Internship (9). Interns assist and/or observe in all job functions and duties at an entertainment venue. Areas include: production management; design services; technical production; talent booking and casting; and creative show development. Prerequisite: Permission of graduate advisor.

MUS 5345 MIDI Technology (2). Introduction to MIDI technology including sequencing, notation, patch editing and a variety of other applications. Prerequisite: Graduate standing.

MUS 5512 Sound Reinforcement (2). Exploration of live music on location, dealing with commonly encountered acoustical problems and how to overcome them. Prerequisite: Permis-

sion of the graduate advisor.

MUS 5655 Expanding Artistic Expression (2). Focuses on expanding the horizons of the artistic vision of the student. Accomplished through a series of projects. Prerequisite: Permission of the graduate advisor.

MUS 5906 Thesis/Recital (1-6). For students working on a thesis or recital for MM in Music. To be completed under the supervision of a faculty member. Prerequisite: Graduate student.

MUS 5971 Thesis (1-6). Research and/or performances towards completion of master's thesis work. Prerequisite: Permission of graduate area advisor.

MUT 5051 Graduate Theory Survey (1-2). Analytical, theoretical and aural skills required for successful graduate studies in music. Prerequisite: Graduate standing in the School of Music or Permission of the instructor.

MUT 5152 Comprehensive Musical Systems (3). Examination of various comprehensive theoretical systems utilized in the analysis of music. Prerequisite: Graduate standing in the School of Music or Permission of the instructor.

MUT 5316 Advanced Orchestration (3). Examination of orchestral techniques utilized by composers from the Baroque era through current times. Prerequisite: Graduate standing in the School of Music or permission of the instructor.

MUT 5355 Advanced Jazz Arranging and Composition (3). Scores and recordings of various sized jazz ensembles are studied for technique and style. Student's compositions and arrangements are performed. Topics include: forms, voicing techniques, instrumentation-live performance vs. recording session. Prerequisite: MUT 4353; MUT 4663; MUT 4664.

MUT 5381 Arranging (3). A course in practical arranging for the public school teacher, including choral, band, and popular arranging. Prerequisites: MUT 2117 and MUT 2227.

MUT 5411 Modal Counterpoint (3). Develop skills necessary to write in the Renaissance style and to analyze the masterworks of Palestrina, Lassus, Victoria, and others. Prerequisite: Graduate standing in the School of Music or Permission of the instructor.

MUT 5486 Advanced Jazz Rehearsal Techniques (2). Study and practical application of complete preparation, programming, and rehearsing of small and large jazz ensembles. Students study scores and recordings of various jazz styles and rehearse school's ensembles. Prerequisite: MUN 4784; MUT 4643; MUT 4663; MUT 4664.

MUT 5585 Musical Styles Through Strict Composition (3). This course is designed to develop basic compositional skills for writing works in all forms and fugues. Prerequisite: Graduate standing in the School of Music or Permission of the instructor.

MUT 5627 Schenkerian Analysis (3). Advanced studies in Schenkerian analysis of tonal music. Prerequisite: Graduate standing in the School of Music or Permission of the instructor.

MUT 5628 Atonal Analysis (3). Advanced studies in set theory and serial techniques of twentieth-century music. Prerequisite: Graduate standing in the School of Music or Permission of the instructor.

MUT 5629 Analytical Techniques (3). Examination and practice of various techniques utilized in the analysis of art music from the common practice period through the 20th century. Prerequisite: Placement exam or Permission of the instructor.

MUT 5646 Advanced Jazz Techniques I (2). A comprehensive, theoretical study of topics related to jazz performance. Includes the nature of improvisation, advanced jazz harmony, theory of jazz improvisation, transcribing and analyzing solos of jazz masters. Prerequisite: MUT 4643.

MUT 5647 Advanced Jazz Techniques II (2). A continuing study of topics related to jazz performance. Includes analyzing solos of jazz masters, development of repertoire, style, and aesthetic concepts. Prerequisite: Advanced Jazz Techniques I.

MUT 5746 Jazz Pedagogy (2). Materials, techniques, and philosophies related to teaching jazz. Includes preparation of courses, course outline and syllabi, lesson plans, lectures. Texts and other resources such as videos, recordings, periodicals, are examined. Prerequisite: MUT 4663; MUT 5355.

MUT 5930 Special Topics (3). Examination of composers, compositional schools, or other areas

of specialization and/or interest to the theory/composition faculty. Prerequisite: Graduate standing in the School of Music or Permission of the instructor.

MVJ 5150 Jazz Piano Techniques (1). Performance of basic jazz standards. Includes basic techniques of the instrument, chord voicing, comping, lead sheet realization for non-pianists. Prerequisite: Graduate standing or permission of the instructor.

MVJ 5350 Principle Applied Jazz: Keyboard (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5354 Principle Applied Jazz: Bass (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz. Prerequisite: MVJ 4344.

MVJ 5355 Principle Applied Jazz: Flute (2) Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5356 Principle Applied Jazz: Saxophone (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5357 Principle Applied Jazz: Trumpet (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5358 Principle Applied Jazz: Trombone (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz.

MVJ 5359 Principle Applied Jazz: Percussion (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and

other performance practices that are particularly relevant to jazz.

MVJ 5453 Principle Applied Jazz: Guitar (2). Individual advanced instruction on major instrument. An in-depth study of overall instrumental technique, eminent jazz styles, and other performance practices that are particularly relevant to jazz. Prerequisite: MVJ 4343.

MVK 5651 Piano Pedagogy (2). Survey of current piano teaching methods.

MVV 5651 Vocal Pedagogy (3). A survey of the literature of teaching methods for the mature voice derived from historical and modern sources. Prerequisite: Permission of the instructor. Corequisites: Applied voice lesson.

MVV 5XXX Graduate Vocal Pedagogy I (2). An introduction to the history and development of vocal pedagogy for the graduate voice major. Emphasis will be placed on a study of the anatomy and acoustics of the human voice.

MVV 5XXX Graduate Vocal Pedagogy II (2). Practical application of the principles of vocal technique in the studio. Emphasis will be placed on the psychological factors which apply to singing and the teaching of singing. Prerequisite: Graduate Vocal Pedagogy I.

Physics

Stephan L. Mintz, *Professor and Chairperson*
 Werner Boeglin, *Associate Professor*
 Richard A. Bone, *Professor*
 Yesim Dacic, *Associate Professor*
 Rudolf Fiebig, *Professor*
 Bernard Gerstman, *Professor*
 Kenneth Hardy, *Professor*
 Franz Klein, *Assistant Professor*
 Laird H. Kramer, *Assistant Professor*
 Pete C. Markowitz, *Assistant Professor*
 Oren Maxwell, *Professor*
 Brian A. Raue, *Assistant Professor*
 Joerg Reinhold, *Assistant Professor*
 Misak Sargsian, *Assistant Professor*
 John W. Sheldon, *Professor*
 Caroline E. Simpson, *Assistant Professor*
 Nongjian Tao, *Associate Professor*
 Walter Van Hamme, *Professor*
 Xuewen Wang, *Associate Professor*
 James R. Webb, *Associate Professor*
 Jiandi Zhang, *Assistant Professor*
 Yifu Zhu, *Associate Professor*

Master of Science in Physics

The Master of Science in Physics is a 45 semester hour program consisting of course work at the 5000 and 6000 level and research with one of the departmental research groups culminating in a master's thesis. Students entering the program must have a bachelor's degree or equivalent course work in Physics.

Required Courses:

PHY 5115	Mathematical Physics I	3
PHY 5116	Mathematical Physics II	3
PHY 5240	Advanced Classical Mechanics	3
PHY 5346	Advanced Electromagnetic Theory I	3
PHY 5347	Advanced Electromagnetic Theory II	3
PHY 6645	Advanced Quantum Mechanics I	3
PHY 6646	Advanced Quantum Mechanics II	3
PHY 6524	Statistical Physics	3
PHY 6935	Graduate Research Seminar	4-6

In addition, three semester hours of specialized course work are required in the student's area of specialization and 12-14 hours of thesis work for a total of 45 hours.

Doctor of Philosophy in Physics

The Doctor of Philosophy in Physics program requires 90 credit hours at the graduate level, including a minimum of 24 credit hours of dissertation research. A maximum of 36 credits may be transferred from another graduate program with the approval of the Graduate Committee.

Required Courses:

1. All Required Courses for the Master of Science in Physics program listed above.
2. Four additional graduate level (5000 or higher) courses.

All doctoral candidates must take a Ph.D. comprehensive exam. This exam is designed to test general knowledge of physics at the advanced undergraduate and first-year graduate level and must be passed not later than the beginning of the third year enrolled in the program. Within two years of entering the program, students must submit to the Graduate Committee their choices of research and advisor. Course work and research programs shall be planned with the advice and approval of the advisor. After passing the comprehensive exam and prior to or during the first semester of the fourth year enrolled in the program, a student must also take a candidacy exam which tests the ability to conduct research in a particular field, as well as the ability to present the results of that research in an organized and coherent manner.

Course Descriptions

Definition of Prefixes

AST-Astronomy; PHS-Physics/Specialized; PHY-Physics; PHZ-Physics; PSC-Physical Sciences; ENU-Nuclear Engineering.
 F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

AST 5215 Stellar Astrophysics (3)
 Topics in Stellar Astrophysics, in greater detail and depth than similar topics in AST 3213. Emphasis on current stellar structure, evolution models and the underlying observational data. Prerequisites: PHY 3124, PHY 3503, PHY 4324, PHY 4222 or equivalent. (F or S)

AST 5405 Extragalactic Astrophysics (3)
 Topics in extragalactic astrophysics, in greater detail and depth than similar topics in AST 3213. Emphasis on galactic structure and evolution, quasars and cosmology. Prerequisites:

PHY 3124, PHY 3503, PHY 4324, PHY 4222 or equivalent. (F or S)

AST 5507 Celestial Mechanics (3)
 Principles of classical Newtonian mechanics applied to the motions of planets, satellites, and interplanetary space probes. Prerequisites: PHY 4222 or equivalent. (F or S)

PHY 5115 Mathematical Physics I (3)
 Methods of solution for problems in mathematical physics: Variational principles, complex variables, partial differential equations, integral equations, and transforms. Prerequisites: MAC 3313, MAP 3302. (F)

PHY 5116 Mathematical Physics II (3)
 Additional solution methods in mathematical physics: Perturbation methods, Laplace's and Poisson's Equations, waves, special functions, vector fields, vector waves. Prerequisite: PHY 5115. (S)

PHY 5235 Nonlinear Dynamics and Chaos (3)
 Introduction to the universal behavior of classical systems described by nonlinear equations. Prerequisites: PHY 4222, MAA 4211. (F or S)

PHY 5240 Advanced Classical Mechanics (3)
 Advanced formulations of the equations of motion and their applications: the central field problem, rigid body dynamics, oscillations and continuous systems. Prerequisite: PHY 4222. (F)

PHY 5346 Advanced Electromagnetic Theory I (3)
 Advanced treatment of classical electro-magnetism: Electrostatics, Green's function, Laplace's equation, multipole expansion, magneto-statics, Maxwell's equations, waves. Prerequisite: PHY 4324. (F)

PHY 5347 Advanced Electromagnetic Theory II (3)
 Additional topics in classical electromagnetism: Wave guides, radiating and diffracting systems, Kirchoff's integral for diffraction, covariant formulation of field equations. Prerequisite: PHY 5346. (S)

PHY 5446 Laser Physics (3)
 Principles of lasers and laser applications, including atom-field interactions, stimulated emission and dipole oscillators, optical resonators and electromagnetic modes, semi-classical laser theory, and specific laser systems. Prerequisite: PHY 4605. (F or S)

PHY 5667 Nonperturbative Quantum Field Theory (3). Euclidean QFT, renormalization group, local gauge symmetry, lattice regularization, Wilson action, fermion fields, expansion schemes, numerical algorithms, hadron properties, recent developments. Prerequisites: PHY 4605.

PHY 5930 Seminar in Physics (1-3). A series of specialized lectures/seminars on selected topics in Physics/Astro-Physics. Prerequisites: Permission of Department.

PHY 5936 Special Topics Research (1-10). Participation in an original investigation in theoretical or experimental physics/astro-physics under direct faculty supervision. Prerequisite: Permission of the instructor.

PHY 5937, PHY 5938 Seminar in Special Topics (3). Seminar work under the supervision of a faculty member on subject material of mutual interest.

PHY 5940 Physics Graduate Teaching Workshop (1). The teaching of physics laboratories. Includes practice of lab experiments, use and adjustment of lab equipment and explanation of departmental grading policy. Supplemented by outside lectures on university policies. (F)

PHY 6524 Statistical Physics (3). Fundamental principles of statistical mechanics; fluctuations, noise and irreversible thermodynamics; kinetic methods and transport theory. Prerequisites: PHY 3503 and PHY 4222. (S)

PHY 6645 Advanced Quantum Mechanics I (3). Advanced topics in quantum mechanics: Quantized systems, relativistic quantum mechanics, potential scattering. Prerequisite: PHY 4605. (F)

PHY 6646 Advanced Quantum Mechanics II (3). Additional topics in advanced quantum mechanics: Collision theory, symmetry transformations, conservation laws, group theory. Prerequisite: PHY 6645. (S)

PHY 6651 Quantum Scattering Theory I (3). The investigation of atomic and electronic scattering processes: Potential scattering, long range potentials, electronatom collisions. Prerequisite: PHY 6645.

PHY 6652 Quantum Scattering Theory II (3). The mathematical investigation of scattering processes:

Auto-ionization, fast vs. slow collisions, Regge poles, S and T matrices. Prerequisite: PHY 6651.

PHY 6668 Relativistic Quantum Field Theory I (3). Introduction to relativistic quantum fields: General formalism, Klein-Gordon field, Dirac field, vector fields, interacting fields, CPT theorem, reduction formulae, gauge theory. Prerequisite: PHY 6646.

PHY 6669 Relativistic Quantum Field II (3). Additional topics in relativistic quantum fields: perturbation theory, U matrix, Wick's theorem, dispersion relations, renormalization, Ward identity, renormalization group, path integral formalism. Prerequisite: PHY 6668.

PHY 6675 Quantum Theory of Many Particle Systems I (3). An introduction to the physics of many particle systems: Second quantization, Fock spaces, Boson and Fermion symmetry, Gell-Mann-Low theorem, diagrammatic expansions, Goldstone theorem. Prerequisite: PHY 6646.

PHY 6676 Quantum Theory of Many Particle Systems II (3). Additional topics in the physics of many particle systems: Fermi gas, Bose condensation, Hartree-Fock approximation, random phase approximation, finite temperature formalism, hadrons. Prerequisite: PHY 6675.

PHY 6935 Graduate Research Seminar (1-2). Seminars presented by students, faculty, and visitors on a variety of topics of current research interest. Repeatable. Required every semester. (F and S)

PHY 6936 Graduate Research (1-10). Research at the graduate level in theoretical or experimental physics under faculty supervision, repeatable. Prerequisites: Permission from supervising faculty.

PHY 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of Department. (F,S)

PHY 6971 Master's Thesis (3). Theoretical and/or experimental research leading to thesis. Prerequisite: Permission of major professor. (F,S)

PHY 7980 Dissertation Research (1-9). Students conduct dissertation research at the doctoral level in theoretical or experimental physics under faculty supervision. Prerequisite: Permission of the instructor. (F, S)

PHY 7981 Dissertation (1-12). Original research work towards completion of dissertation and presentation and defense of dissertation. Prerequisite: Permission of major professor and Ph.D. candidacy status.

PHZ 5130 Theoretical Treatment of Experimental Data (3). Statistical analysis of physical processes and statistical tests, with particular emphasis on instrumentation-related problems. Mathematical modeling and computer simulation. Prerequisite: Undergraduate statistics course, or equivalent, or Permission of the instructor.

PHZ 5151 Computational Physics I (3). Physical systems by means of computer simulation. Monte Carlo, molecular dynamics, percolation, random systems, chaos, criticality, gauge fields. Prerequisite: PHY 5115 and PHY 5116.

PHZ 5234 Atomic and Molecular Collision Phenomena (3). Investigation of atomic and molecular collision phenomena: Kinetic theory, elastic scattering, inelastic scattering, excitation and ionization, heavy particle collisions. Prerequisites: PHY 4605 and PHY 4222. (F or S)

PHZ 5304 Advanced Nuclear Physics (3). The fundamental properties of nuclei, nuclear forces, nuclear models, radioactivity, weak processes, and nuclear reactions. Prerequisite: PHY 4604. Corequisite: PHY 4605. (F or S)

PHZ 5405 Solid State Physics (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, crystalline surfaces, and amorphous materials. Prerequisites: PHY 3124 or CHM 3411.

PHZ 5505 Low Energy Plasma Physics (3). The investigation of the kinetics of rarefied gases and thermal plasmas: Phase space, random currents, orbit theory, plasma sheaths, radiation, the pinch effect. Prerequisites: PHY 3503, PHY 4324, and PHY 4222.

PHZ 5506 Plasma Physics (3). An introduction to plasma fundamentals, the Boltzmann equation, the hydrodynamic equations, orbit theory, the interaction of electromagnetic waves with plasmas, the pinch effect and instabilities. Prerequisite: PHY 3049. (F or S)

PHZ 5606 Special Relativity (3). A detailed study of special relativity: Lorentz transformations, relativistic

electrodynamics. Prerequisite: PHY 3124.

PHZ 5607 General Relativity (3). General relativity using differential geometry and tensor analysis. Topics include Einstein's field equations and their solutions, applications and observational tests. Black Holes and cosmology are also discussed. Prerequisite: PHY 4222 and PHY 4605.

PHZ 5XXX Computational Physics II (3). Advanced computer simulation methods of physical systems. Application in chaos, nonlinear and random systems, criticality, field theory and practices. Prerequisites: PHZ 5151. Corequisites: PHY 5115 and PHY 5116.

PHZ 6255 Molecular Biophysics (3). The use of theoretical physics techniques to investigate biological systems: Protein structure and dynamics, electron tunneling, nuclear tunneling, hemoglobin, photosynthesis, vision. Prerequisite: PHY 4605. (F or S)

PHZ 6326 Low Energy Nuclear Physics I (3). Introduction to the physics of nuclei and nuclear processes: Nuclear forces, scattering processes and nuclear models. Prerequisite: PHY 4605.

PHZ 6327 Low Energy Nuclear Physics II (3). Additional topics in nuclear physics: The shell and collective models, nuclear reactions and applications, scattering theory, entrance channel phenomena, rearrangement collision and breakup reactions. Prerequisite: PHZ 6326.

PHZ 6354 Introduction to Particle Physics (3). An introduction to modern particle theory: Elementary field theory, symmetries, quantum electrodynamics, quark-parton model, quantum chromodynamics, Weinberg-Salam model. Prerequisite: PHY 6646.

PHZ 6359 Quantum Gauge Field Theories (3). Basics in field quantization, nonabelian symmetries, the standard $SU(3) \times SU(2) \times U(1)$ model, non-perturbative features, lattice regularization and numerical simulation. Prerequisites: PHY 4605, PHY 5346. (F or S)

PHZ 6426 Advanced Solid State Physics (3). Electronic structures of solids and surfaces, electron-electron interaction, superconductivity, magnetism in solids, amorphous systems, glasses, polymers, percolation, local-

ization, phase transition, fractals. Prerequisites: PHY 4324 and PHY 4605. (F or S)

PHZ 6437C Surface Physics (3). An introduction to theoretical and experimental techniques AES (Auger Electron Spectroscopy), LEED (Low Energy Electron Diffraction), XPS (X-ray Photoelectron Spectroscopy), AFM (Atomic Force Microscopy) and STM (Scanning Tunneling Microscopy). Prerequisite: PHZ 5405 or permission of the instructor.

Political Science

Nicol Rae, *Professor and Chairperson*
 Astrid Arraras, *Assistant Professor*
 Colton Campbell, *Assistant Professor*
 Virginia Chanley, *Assistant Professor*
 Ronald Cox, *Associate Professor*
 Keith Dougherty, *Assistant Professor*
 Eduardo Gamarra, *Professor and Director, Latin American and Caribbean Center*

Joel Gottlieb, *Associate Professor*

Ivelav Griffith, *Professor and Associate Dean*

Kevin Hill, *Associate Professor and Undergraduate Program Director*

Antonio Jorge, *Professor*

Joseph Jupile, *Assistant Professor*

Jeanne Kates, *Instructor*

Mary Beth Melchior, *Assistant Professor*

Dario Moreno, *Associate Professor*

Brian Nelson, *Associate Professor*

Richard Olson, *Professor and WWR Foundation Eminent Scholar, International Hurricane Center*

Timothy Power, *Assistant Professor, Graduate Program Director*

Mark Rosenberg, *Professor and Provost*

Cheryl Rubenberg, *Associate Professor*

Rebecca Salokar, *Associate Professor*

John Stack, *Professor and Director, Institute for Public Policy and Citizenship Studies*

Judith H. Stiehm, *Professor*

Christopher Warren, *Associate Professor*

The Master of Arts and the Doctor of Philosophy Degrees in Political Science at Florida International University are designed to provide students with a comprehensive knowledge of political science. The graduate program in political science builds on faculty strengths and distinguishes itself by stressing a comparative approach to the study of politics. The program is designed to equip its graduates with a solid foundation in the basic theories and methods of political science, in conjunction with an in-depth education in selected traditional subfields. The program has a particular focus on Comparative Politics and American Politics.

Admission Procedures

Applicants seeking admission for the Fall semester should have application materials submitted by March 15th. Incomplete applications cannot be considered by the Graduate Admissions Committee. Admission decisions will

be announced no later than April 15th. Applicants must also send copies of the following materials directly to the Department's Admissions Committee at the following address: Department of Political Science, DM 480, University Park Campus, Miami, Florida 33199. Telephone: (305) 348-2226; Fax: (305) 348-3765.

The following application materials must be submitted to the University's Admissions Office.

1. A completed FIU Graduate Application form with requisite application fees.

2. Official transcripts of all university-level work, including undergraduate or professional school courses.

3. An official report of Graduate Record Examination (GRE) scores.

4. All foreign students whose native language is not English must submit official reports of Test of English as a Foreign Language (TOEFL) and Test of Spoken English (TSE).

Applicants must send the following materials directly to the department's admissions committee.

1. Two letters of reference from former instructors who are able to evaluate the applicant's potential for graduate study. Applicants should ensure that each letter is signed by the author along the sealed flap of the envelope.

2. A personal statement of intent, including a discussion of education and career objectives and the specific relationship of a Master's or Doctoral degree in political science to the achievement of those objectives. The personal statement should not exceed three typewritten, double-spaced pages.

Master of Arts

Admission Requirements

Admission to the Master's program is competitive. Meeting the minimum requirements does not guarantee acceptance.

The minimum requirements for admission to the M.A. program include:

1. A baccalaureate degree from an accredited college or university.

2. A minimum 3.2 grade point average (on a 4.0 scale) during the last two years of a student's undergraduate program (students with graduate or professional course work will be evaluated individually).

3. A minimum combined score of 1000 on the verbal and quantitative sections of the GRE.

4. Foreign students whose native language is not English must have a TOEFL (Test of English as a Foreign Language) score of 550 or higher.

Degree Requirements

The course of study for the M.A. in Political Science requires 30 credit hours. A final research project and research seminar are required components:

Required Courses (9 credits)

POS 5716	Foundations of Political Science	3
POS 5706	Research Methodology	3
POS 6976	Research Seminar	3

Core Courses (9 credits)

Each student is required to take three of the following four core courses:

POS 5045	Seminar in American Politics	3
CPO 5091	Seminar in Comparative Politics	3
INR 5007	Seminar in International Politics	3
POT 5007	Seminar in Political Theory	3

Electives (12 credits)

Students are required to take four elective courses. A student may take a maximum of six credit hours in a cognate field or in an approved cognate program.

Doctor of Philosophy

Admission Requirements

Admission to the Ph.D. program is competitive. Meeting minimum requirements does not guarantee acceptance.

The minimum requirements for admission to the Ph.D. program include:

1. A baccalaureate degree from an accredited college or university;
2. An undergraduate GPA of 3.2 and/or a graduate GPA of 3.25;
3. A minimum combined score of 1000 on the verbal and quantitative sections of the GRE. The GRE Political Science examination is not required.
4. Foreign students whose native language is not English must have a TOEFL (Test of English as a Foreign Language) score of 550 or higher.

Degree Requirements

The Ph.D. program requires a minimum 90 credit hours beyond the Bachelor's degree.

The Doctor of Philosophy in Political Science is conferred based on satis-

factory completion of required course work, a demonstrated mastery of a broad field of knowledge, and successful completion and defense of the dissertation. The degree provides graduates with a solid foundation in the basic theories and methodologies of political science in conjunction with specialization in traditional sub-fields. Students will, in consultation with their faculty advisors, determine the contents of their course work. Students will specialize in three examination fields. Four of the possible fields are based on the traditional substantive areas of Political Science (American Politics, Comparative Politics, International Politics, and Political Theory). A fifth field (Area Studies) allows students to concentrate on either a regional area or substantive issue. Normally, all students will take 12 credit hours in disciplines outside the Political Science department.

Students' proposed programs must be approved by their advisors and the Graduate Studies Committee.

Required Courses (10 credits)

POS 5702	Teaching Political Science	1
POS 5706	Research Methodology	3
POS 5716	Foundations of Political Science	3
POS 6918	Seminar in Political Science Methodology	3

Common Core Courses (12 credits)

CPO 5091	Seminar in Comparative Politics	3
INR 5007	Seminar in International Politics	3
POS 5045	Seminar in American Politics	3
POT 5007	Seminar in Political Theory	3

Fields (24-45 credits in 3 fields):

Comparative Politics
International Politics
American Politics
Political Theory

Language Requirement

The Political Science Ph.D. Program requires competency in one foreign language or demonstrated competency in computer and methodological techniques when considered more appropriate. Language competency must be demonstrated prior to taking the comprehensive examinations.

Comprehensive Examination

After satisfactory completion of course work, students will take comprehensive exams before starting work on the dissertation and being admitted to candidacy. The comprehensive exams

will cover core courses and functional fields. They will be written and oral.

Dissertation (24-45 credits)

After passing the comprehensive exams, students are admitted to candidacy and enroll for dissertation credits under the supervision of their dissertation advisors. Candidates will prepare and defend a dissertation proposal. Upon completion of the work, a public defense of the dissertation will be scheduled in accordance with university policy.

Financial Aid

The program has a limited number of graduate assistantships available for qualified students. Assistantships are awarded on a competitive basis only to full-time students. Students applying for full-time status are considered automatically for these awards. Assistantships are renewable each year for up to four years based on satisfactory progress and performance.

The University also grants 'need based' financial aid. For information on these awards call the Financial Aid Office at (305) 348-2431.

Course Descriptions

Definition of Prefixes

CPO-Comparative Politics; INR-International Relations; POS-Political Science; POT-Political Theory; PUP-Public Policy.

CPO 5036 Politics of Development (3). This course examines divergent explanations for development and underdevelopment. Of central importance are the concepts and theories that emphasize the political dimensions of development processes of development, and actors in the development process.

CPO 5091 Seminar in Comparative Politics (3). A foundation in the development of the field of comparative politics and in the major schools of thought that have molded perspectives on comparative political analysis.

CPO 5325 Politics of the Caribbean (3). Examines the structural and institutional aspects of the politics of the Caribbean in both domestic and international contexts. Prerequisite: Graduate standing.

CPO 5934 Topics in Comparative Politics (3). A rigorous examination of a topic in comparative politics. Subject matter varies according to instructor. Topic will be announced in advance.

CPO 5936 Seminar in Comparative Political Parties (3). Students read and discuss major works on parties by conservative, liberal, and Marxist authors.

CPO 6062 Seminar in Comparative Judicial Politics (3). An examination of judicial structures, legal traditions, judicial behavior and judicial power cross culturally.

CPO 6066 Comparative Constitutional Law (3). An examination of constitutionalism in both established and developing democracies. Particular emphasis on the role of courts, judicial review and judicial remedies using doctrinal, contextual and theoretical analysis.

CPO 6084 War, Peace and the Military (3). Examines theories of the relationship between societies, governments and their militaries. Emphasis on relationship between militaries and a nation's experience with peace and participation in war. Prerequisite: Graduate standing.

CPO 6106 Seminar on European Politics (3). Advanced discussion of major themes in European politics. Topics include corporatism, post-materialism, democratization, and European integration.

CPO 6206 Seminar in African Politics (3). Studies the crisis of African development. Topics include colonialism, internal cleavages, and impact of the global economy.

CPO 6307 Seminar on South American Politics (3). Explores the realities and myths of the democratization experience of South America.

CPO 6350 Seminar in Brazilian Politics (3). The political development of Brazil, focusing on alternation between authoritarianism and democracy. Emphasis on clientelism, patronalism, civil-military relations, and political institutions.

CPO 6376 Seminar in Central American Politics (3). Central America's socio-political evolution. Attention is given to both the national and international politics of the region.

CPO 6407 Seminar in Politics of the Middle East (3). In depth analysis of comparative theoretical perspectives of political processes in the Middle East.

INR 5007 Seminar in International Politics (3). An advanced graduate course designed to give students a specialized knowledge of the classics

in international politics. The course traces the development of international politics from Thucydides to the present.

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics.

INR 5105 American Foreign Policy (3). Compares different perspectives in foreign policy analysis. Provides a comprehensive understanding of major issues in U.S. policy.

INR 5414 Topics in International Law (3). An intensive examination of the political dimensions of international law in the context of rapidly changing global political relations.

INR 5934 Topics in International Politics (3). A rigorous examination of a topic in international politics. Subject matter varies according to instructor. Topic to be announced in advance.

INR 5XXX Politics of Globalization (3). Intensive examination of state and global institutions that have shaped the process of economic globalization. Topics include impact on sovereignty, human rights, labor and agenda-setting of large and small nation-states.

INR 6080 Seminar on Non-State Actors (3). Explores the nature of non-state actors in international politics, including cities, interest groups, multinationals, and individuals.

INR 6205 World Politics (3). 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.

INR 6705 Seminar in International Political Economy (3). Theories of economic cooperation and conflict among nation-states. Liberal, economic nationalists and Marxist theoretical paradigms are explored in an examination of the internationalization of capital, trade and investment and the role of the State in the global economy.

INR 6936 Seminar in Inter-American Politics (3). Focus on U.S.-Latin American relations. Attempts to link the theoretical literature on U.S.

foreign policy with empirical developments.

INR 6939 Seminar in International Law (3). Allows for specialized and topical offerings by regular and visiting faculty. Also permits experimental courses.

POS 5045 Seminar in American Politics (3). The advanced study of U.S. politics. Students read and discuss the major works and theories concerning American politics and government.

POS 5146 Seminar in Urban Politics (3). Examination of processes by which urban areas are governed. Emphasis is on conflicts over structures, power, policy and the politics of ethnicity and class.

POS 5158 Topics in Politics (3). Subject matter varies according to instructor.

POS 5208 Seminar in Political Behavior (3). Analyzes the literature in political behavior. Special emphasis is on voting, socialization, attitudes, partisanship, campaigning, the media, and political participation in the developed democracies. Prerequisite: POS 5706.

POS 5447 Seminar in U.S. Political Parties (3). Students read and discuss the major works and theories on U.S. political parties.

POS 5638 Topics in Public Law (3). A rigorous examination of a topic in public law. Subject matter varies according to instructor. Topic will be announced in advance.

POS 5702 Teaching Political Science (1). Introduces graduate students to the pedagogical and practical aspects of teaching political science. Topics will include selecting books, writing a syllabus, lecturing, running discussion groups, and testing and grading. Covers professional ethics, and student rights and responsibilities.

POS 5706 Research Methodology (3). This course is an introduction to the principal concepts and techniques of quantitative and non-quantitative methodology in the social sciences. It is designed to familiarize the student with the language and format of quantitative and non-quantitative applications in order to permit students to deal effectively with the literature of their field.

POS 5716 Foundations of Political Science (3). Prepares students for the

advanced study of politics. Areas of study include history of political science as a discipline, comparison of classical and modern sciences of politics and realpolitik, epistemological foundations.

POS 5909 Independent Study (1-6). Designed for advanced students who wish to pursue specialized topics in political science. Arrangements must be made with instructor during prior semester.

POS 5932 Topics in Urban Politics (VAR). 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.

POS 6072 Seminar in U.S. Political Economy (3). Examines core issues related to the U.S. political-economic system, and the challenge of business to democracy. Students study the major problems confronting communities in urban areas.

POS 6266 Community Power Theory (3). Studies the concept of power in the U.S. and classics of community power literature.

POS 6286 Judicial Research (3). Examination of the methodological approaches used to study courts in a political context. Special attention to seminal works that focus on individual, small group and institutional behavior, and extra-legal influences.

POS 6415 Seminar on the U.S. Presidency (3). Examines the most important works on the U.S. Presidency, and the evolution of the office since 1789.

POS 6427 Seminar on the U.S. Congress (3). Discussion of the scholarly literature on Congress. Students analyze trends in congressional power and possible reforms.

POS 6608 Seminar on U.S. Supreme Court (3). Seminar covers literature, both current and classic, on U.S. Supreme Court. Topics covered typically include the major paradigms, appointment, access, agenda setting, decision making and impact.

POS 6639 Seminar in Public Law (VAR). Graduate seminar on special

topic in public law. Topic to be announced in advance.

POS 6725 Formal Political Modeling (3). Introduces students to the foundations of public choice. Particular topics may include decision theory, social choice, spatial voting models, and game theory, among others.

POS 6918 Seminar in Political Science Research Methods (3). Examines the methods used to design, execute, and critique empirical research in political science, addressing a variety of methodological issues. Prerequisites: POS 5706 and POS 5716.

POS 6937 Seminar in Politics (VAR). Subject matter varies according to instructor.

POS 6971 Thesis (1-6). Requires students to enroll for thesis or dissertation research for at least one credit hour every semester in which they are engaged in such research. Prerequisites: All other course work for the Master's.

POS 6976 Research Seminar (3). Required course for all MA candidates during completion of their major research project. The course guides student research while in progress. Prerequisite: POS 5706.

POS 7976 Pre-Dissertation Research (1-9). During the term in which students take Ph.D. comprehensive exams, this course enables them to concentrate on completion of their dissertation prospective. Prerequisite: Completion of all other Ph.D. coursework.

POS 7980 Dissertation (3-12). Supervised research and writing of an original research project. Prerequisites: Candidacy and permission of advisor.

POT 5007 Seminar in Political Theory (3). An examination of writings from a diverse list of some of the major political theorists in the western tradition from antiquity to the present.

POT 5307 Feminist Political Theory (3). Examines feminist political theory in the second half of the twentieth century with the focus on the work of U.S. scholars.

POT 5326 Graduate Seminar in Class Analysis (3). The theoretical and empirical issues associated with class divisions in contemporary societies. Theoretical debates regarding definitional problems of class identity and

empirical case studies highlighting class conflict and stratification.

POT 5934 Topics in Political Theory (3). An intensive examination of selected topics dealing with political theory. Subjects will vary, depending upon the desires of students and faculty. Allows the student to choose topics of particular interest to him or her.

POT 6015 Seminar in Classical Political Thought (3). Examination of key elements of classical political thought from the Hellenic to early Christian periods.

POT 6056 Seminar in Modern Political Thought (3). Examines important works and theories or political thought from the renaissance to the early 19th century.

POT 6067 Seminar in Contemporary Political Thought (3). Examines political theories of the 19th and 20th centuries. Special emphasis on the tension between modern and post-modern theory.

POT 6208 Seminar in American Political Thought (3). Students read and discuss classic and contemporary interpretations of U.S. political thought, and apply those ideas to modern U.S. politics.

POT 6303 Seminar on Self and Polity (3). Focuses on conceptions of self that are reinforced by different political regimes. Examines humanities and social science works that address self and polity issues.

POT 6416 Seminar in Marxism (3). Analysis of the evolution of Marxism from Marx to the present. Particular attention is given to contemporary Marxist debates.

POT 6603 Political Theory of the Modern State (3). Analyzes evolution and theories of the modern state from the high middle ages to the present. Pre-state formations, classical states, and social science theories of the state are also discussed.

PUP 5934 Topics in Public Policy (1-6). A rigorous examination of a topic in public policy. Subject matter varies according to instructor. Topic will be announced in advance.

PUP 6007 Seminar in Public Policy (1-6). Graduate seminar on special topic dealing with public policy analysis. Subject matter varies according to instructor. Topic to be announced in advance.

Psychology

Marvin Dunn, *Associate Professor and Chairperson*

Lorraine Bahrick, *Professor*

Margaret Bull-Kovera, *Associate Professor*

Joan Erber, *Professor*

Luis Escovar, *Associate Professor*

Gordon Finley, *Professor*

Ronald Fisher, *Professor*

Arthur Flexner, *Associate Professor*

Leslie Frazier, *Assistant Professor*

Jacob Gewirtz, *Professor*

Fernando Gonzalez-Reigosa, *Associate Professor*

Margaret Kovera, *Associate Professor*

William Kurtines, *Professor*

Mary Levitt, *Professor*

Robert Lickliter, *Professor*

Michelle Marks, *Assistant Professor*

Christian Meissner, *Assistant Professor*

Marilyn Montgomery, *Assistant Professor*

Gary Moran, *Professor*

Janat Parker, *Professor*

James Rotton, *Associate Professor*

Juan Sanchez, *Associate Professor*

Bennett Schwartz, *Associate Professor*

Wendy Silverman, *Professor*

Jonathan Tubman, *Associate Professor, and Graduate Chair*

Chockalingam Viswesvaran, *Associate Professor*

Master of Science in Psychology

The Masters of Science in Psychology program at the University is designed to train practitioners and researchers who can function in a variety of applied settings. The core curriculum and admission prerequisites are intended to provide students with a base of knowledge in psychology. A distinctive feature of the program is its emphasis on a close working relationship between student and faculty. Under faculty supervision, students are encouraged to develop individually tailored programs of study that reflect both student interests and program strengths.

The curriculum consists of 36 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

professional objectives. Six of the 36 semester credit hours consist of Master's thesis credits.

The Mental Health Counselor Master's program allows students to meet university requirements plus the requirements for a Mental Health Counseling license.

Doctor of Philosophy in Psychology

The doctorate program in psychology has a two-fold focus: (1) life-span development (2) applied psychology. The program emphasizes normal development as well as cross-cultural and urban perspectives on the life span and legal and industrial/organizational applied psychology. The emphasis is on academic quality and the curriculum is designed to foster a commitment both to basic research and to application as an integral part of the individual student's specialty area development. The curriculum offers a broad background in life-span development and applied psychology while encouraging the development of an area of specialization early in graduate training.

Students are expected to master a series of core-course requirements designed to facilitate a thorough grounding in theory, methodology, and content both in basic and applied research. In addition, a number of seminars reflecting specialized foci are offered. Students are also required to pursue specific areas of interest through independent study with individual faculty members and through apprenticeship with a primary advisor for the purpose of acquiring direct research experience.

Graduate Admission Requirements

The following are in addition to the University's Graduate Admission Requirements:

1. A 3.0 or higher GPA during the last two years as an upper division student and a total score (quantitative plus verbal) of 1,000 or higher on the GRE for the Master's degree. A 3.0 or higher GPA and a GRE verbal and quantitative of 1100 or higher are required for the Ph.D. degree. Foreign students whose native language is not English must take the Test of English as a Foreign Language (the TOEFL examination) and obtain a 580 score of higher.

2. The GRE and GPA stated above are only minimum requirements. All applications are reviewed by the

Program Area Admission Committee, which makes the final admissions decisions. Since admission to the program is competitive, the committee's requirements are normally higher than the minimum aforementioned standards.

Graduate Admissions Procedures

Applicants must submit the following to the Graduate Studies Admission Committee, Department of Psychology, Florida International University, Miami, Florida 33199:

1. A photocopy of the admission application submitted to the Admissions Office.

2. A brief essay stating the reasons for the interest in the program and career goals.

3. Three letters of recommendation, preferably from previous instructors and/or persons familiar with applicant's academic background.

Applicants to the program who are not psychology majors may be accepted conditionally until they meet the category requirements, listed below, early in their graduate career. A maximum of nine semester hours credit earned in the non-degree seeking student category exclusive of prerequisite undergraduate courses may be applied to graduate degree requirements. The undergraduate course requirements are designed to make certain that students accepted into the graduate program have a broad base of dependable psychological knowledge and acquaintance with the basic methodologies upon which the discipline is founded.

Category A. Satisfactory completion of one psychology laboratory or research methods course.

Category B. Satisfactory completion of introductory upper division statistics.

Deadline for review of completed applications is January 15 for fall admission.

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 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 'practicum' assignments if feasible) are covered.

CLP 5169 Proseminar in Developmental Psychopathology (3). A comprehensive review of topics in developmental psychopathology including history, scope, methods, individual and contextual influences, developmental course, long-term outcomes, and resilience. Prerequisites: Graduate standing or Permission of the instructor.

CLP 5175 Personality Dynamics (3). A review of different approaches to the study of personality. Prerequisites: Successful completion of a course in theories of personality, or equivalent. Permission of the instructor.

CLP 5185 Current Issues in Mental Health (3). A critical, intensive examination of selected, important issues in mental health. Emphasis is given to the empirical study of contemporary problems related to the making of mental patients; planning, programming, and administering mental health services; political, ethical, and legal constraints on the operation of mental health facilities; interdisciplinary cooperation among helping and human service professionals; and evaluation of preventive care and treatment services. Prerequisite: Abnormal Psychology or permission of the instructor.

CLP 5931 Ethical Code in Psychological Practice (3). Ethical principles, rules, procedures of Psychologists. Clinical application and incorporation of the principles into professional interactions. Ethical reasoning is emphasized.

CLP 6168 Psychopathology Across the Life-Span (3). Exploration of the causes of psychopathology from a life-span developmental orientation and implications for theories of personality. Prerequisites: CLP 5166 and Permission of the instructor.

CLP 6375 Clinical Psychology (3). Introduction to the science-profession of clinical psychology, as it is applied to preventing, diagnosing and treating maladaptive or deviant human behavior and relationships. Prerequisites: Admission to the Graduate Program in Psychology or Education and Permission of the instructor.

CLP 6395 Forensic Psychology.(3). This course surveys the practical and ethical issues surrounding the interface between clinical psychology and the law. Prerequisite: CLP 4144, CLP 6168 or equivalent of either.

CLP 6436 Introduction to Psychological Assessment (3). This course provides instruction in the principles and methods underlying the administration, construction and evaluation of psychological tests and measures. Prerequisite: Graduate standing.

CLP 6437 Behavioral Assessment in Childhood (3). Standardized tests and inventories for the behavior assessment of infants, children, and adolescents will be surveyed. Prerequisites: Proseminar courses and second year graduate standing.

CLP 6438 Psychological Assessment (3). Theory, research, and applications of psychological assessment in areas such as interviewing, intellectual and cognitive functioning, and personality testing. May be repeated for credit with different subject matter. Prerequisite: STA 3122 and Permission of the instructor.

CLP 6498 Diagnosis and Treatment of Sexual Disorders (3). Clinical examination of sexual functioning, emphasizing disorders of gender identity, paraphilias and other dysfunctions and intimacy problems. Prerequisite: Graduate standing or Permission of the instructor. Corequisites: SOP 3772 or equivalent.

CLP 6945 Clinical Practicum in Psychology (1-3). Supervised experience in clinical techniques and methods. Prerequisites: Graduate standing & Permission of the instructor.

CLP 6948 Clinical Internship (1-3). Clinical Internship in Psychology for Ph.D. candidates who have completed the Clinical Practicum and at least 45 graduate credit hours. Prerequisites: Graduate standing and Permission of the instructor, CLP 6945.

CYP 5534 Groups as Agents of Change (3). 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 5954 Community Psychology Field Experiences II (5). 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 (3). 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 (3). An analysis of the basic psychological approaches underlying consultation, with special emphasis on the practical application of the processes of learning, cognition, and interpersonal relations to techniques of consulting with various 'target' agencies, individual clients, and other professionals in community settings. Prerequisite: Graduate standing at FIU or Permission of the instructor.

CYP 6766 The Psychology of Crosscultural Sensitization in a Multicultural Context (3). 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 Psychology (3). An 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. Prerequisite: Admission to graduate study in psychology (other graduate students admitted by Permission of the instructor).

DEP 5056 Issues in Life-Span Developmental Psychology: Infancy through Old Age (3). A survey in depth of theories, issues, methods, and data in life-span developmental psychology through the entire age range. Prerequisites: DEP 3001 or DEP 4464, or their equivalents, are recommended.

DEP 5058 Biological Basis of Behavior Development (3). Introduction to theory and research underlying behavioral development. Covers such pre-and post-natal determinants as evolution, genetics, neuroendocrines, as well as social development, behavioral ecology, and sociobiology. Prerequisite: Graduate standing or Permission of the instructor. Corequisite: Proseminar courses.

DEP 5068 Applied Life Span Developmental Psychology (3). This course is designed to acquaint the student with various applications in life-span developmental psychology. An overview of general issues and areas of application is offered, and specific applications are considered. Prerequisite: Graduate standing or Permission of the instructor.

DEP 5099 Proseminar in Infancy, Childhood, and Adolescence (3). Provides a comprehensive review of issues in perceptual, cognitive, social, emotional, and personality development from infancy through adolescence. Prerequisite: Graduate standing or Permission of the instructor. Corequisite: Pro-seminars.

DEP 5118 Current Issues in Cognitive and Perceptual Development in Infancy (3). Provides an in-depth analysis of current issues, methods, research and theory of cognitive and perceptual development during the first year of life. Special emphasis on object and event perception, memory, and imitation. Prerequisites: Two courses in developmental psychology - any level recommended.

DEP 5185 Emotional Learning and its Reversal (3). Theoretical analyses and methodological issues in the study of emotional learning. Prerequisites: Graduate standing or Permission of the instructor.

DEP 5315 Proseminar in Parent-Child Relations (3). Provides an overview of key issues in parent-child relations including culture, socialization/genetics, fatherhood, timing, adoption, work, effects of children on parents, and parent training. Prerequisite: Graduate standing or Permission of the instructor.

DEP 5344 Psychology of Moral Development (3) An introduction to the literature on moral development. Review and discussion of recent developments in this area. Prerequisites: Graduate standing or Permission of the instructor.

DEP 5405 Proseminar in Psychology of Adulthood and Aging (3). A comprehensive review of topics in adulthood and aging including: biological changes, social processes, work, family, cognition, memory, personality, and psychopathology. Prerequisite: Graduate standing or Permission of the instructor.

DEP 5608 Theoretical Perspectives in Developmental Psychology (3). The focus of this course is on the major paradigms, models, and theories that have been influential in developmental psychology, both historically and contemporaneously. Meta-theoretical issues, paradigmatic influences, and specific theories are considered. Prerequisite: Graduate standing or Permission of the instructor.

DEP 5725 Seminar in Psychosocial Development (1). This course is designed to develop research skills and competencies in the area of psychosocial development. The emphasis of the course is on involvement in original research. Prerequisite: Permission of the instructor. Corequisite: Senior undergraduate or graduate standing.

DEP 5796 Methods of Developmental Research (3). Survey of issues and methods at all stages of life-span developmental research including theory, methods, design, and data reduction. Prerequisite: Graduate standing or Permission of the instructor. Corequisite: Proseminars.

DEP 6117 Psychology of Caregiving (3). An advanced seminar focusing on one or more topics in depth and requiring literature reviews and research design. Topics may include timing of parenthood, adoption, and fatherhood.

DEP 6145 Psychology of Culture and Childhood (3). Extensive cross-cultural readings will serve as the focus for seminar discussion of cultural influences on children's biological, motor, perceptual, cognitive, social, and personality development. Prerequisite: Graduate standing or Permission of the instructor.

DEP 6186 Social Development and Learning (3). Theories and facts of socio-emotional development, learning, and the acquisition and maintenance of social relationships in early life are examined critically. Prerequisites: DEP 3000 or DEP 3001 or equivalent.

DEP 6465 Psychology of Culture and Aging (3). An intensive examination of cultural influences on social and psychological aging processes including minority aging and involving seminar discussion and independent projects. Prerequisite: Graduate standing.

DEP 6466 Cognitive Processes in Aging (3). An intensive analysis of the background and recent developments in the area of age changes and age differences in intellectual functioning and learning memory processes. Prerequisite: DEP 5405.

DEP 6477 Psychology of Social Processes in Aging (3). An intensive analysis of the background and recent developments in theoretical models of social development, personality processes, and social processes in the older adult. Prerequisite: DEP 5405.

DEP 6645 Cognition and Language (3). Course covers the acquisition of cognitive processes and language, and their interdependence. Theory and research focusing on innate vs. learned aspects are discussed. Prerequisite: Graduate standing or Permission of the instructor.

DEP 6936 Current Literature in the Psychology of Infancy, Childhood, and Adolescence (3). This seminar will present and evaluate current research articles in the major journals in infant, child, and adolescence psychology. Prerequisite: Second year graduate standing.

DEP 6937 Current Literature in the Psychology of Adulthood and Aging (3). This seminar will present and evaluate current research articles in the major journals in the psychology of adulthood and aging. Prerequisite: Second year graduate standing.

DEP 6945 Life-span Developmental Psychology Practicum (3). This is an individually tailored program where students will work in an agency on a specific problem or project, culminating in a final written report. Prerequisite: Second year graduate standing.

DEP 7069 Seminar in Life-Span Cognitive Developmental (3). This graduate seminar will examine, through intensive reading and seminar discussion, the major theories, issues and empirical research on cognitive growth, change and decline from infancy through old age. Prerequisites: Two courses in Developmental Psychology (any level).

DEP 7096 Seminar in Psychology of Life-Span Social Development (3). This course includes a consideration of general issues and discussion of the application of life-span models to selected topics development. Prerequisite: Graduate standing or Permission of the instructor.

EAB 5098 Proseminar in the Experimental Analysis of Behavior (3). An advanced survey of the principles of respondent and operant conditioning and the bases of action in both social and non-social settings. Prerequisites: EAB 3002, EAB, 4034, or equivalents.

EAB 5655 Advanced Methods of Behavior Change (3). 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 the instructor.

EAB 5797 Single-Case Research Methods (3). Intensive study of designs, strategies, and methods of single-case behavioral research. Prerequisites: Graduate standing or Permission of the instructor.

EAB 6707 Developmental Behavior Analysis (3). A survey of the application of the principles, methods, and applications of experimental behavior analysis to various life-span segments and developmental themes. Prerequisites: Proseminar in Behavioral

Analysis or an undergraduate EAB course (EAB 3002, EAB 4034, or EAB 4794).

EDP 6935 Special Topics in Educational Psychology (VAR). An intensive analysis of a particular topic in educational psychology. Students must have topics approved by the instructor prior to registration. Open only to advanced and graduate students in the College of Education.

EXP 5099 Proseminar in Experimental Psychology (3). Provides a comprehensive review of current research and theory in areas such as learning, memory, cognition, sensation, and perception. Prerequisite: Graduate standing or Permission of the instructor.

EXP 5406 Theories of Learning (3). The major theoretical systems of learning are covered, with the intent of determining how well each accounts for the phenomena of learning. Emphasis is placed on exploring the controversial issues raised by extant theories, and the experimental resolution of these theoretical controversies. The impact of theory on current thinking about learning is considered.

EXP 5508 Applied Cognitive Psychology (3). Covers the basic theories of cognitive psychology perception, attention, memory, learning, knowledge, with emphasis on application to real-world problems. Prerequisite: Graduate Standing.

EXP 5524 Cognitive Neuroscience (3). Investigation of the relation between mind and brain. Discuss literature from both patient studies and from the growing research in neuroimaging. Prerequisite: Graduate standing.

EXP 5527 Memory and Consciousness (3). The relation of memory and consciousness is explored with emphasis on issues of current research and theoretical work from both a cognitive and a neuropsychological perspective. Prerequisite: Graduate standing.

EXP 7747 Practicum in Causal Modeling (3). Introduction to linear structural relations models, emphasizing logical and practical problems in inferring causation for experimental and correlational research designs.

INP 5095 Proseminar in Industrial Psychology (3). Provides coverage of industrial and personnel psychology topics such as job analysis, personnel recruitment and selection, legal aspects

of employment, performance appraisal, and training design and evaluation. Prerequisites: Acceptance to Master's or Ph.D. program in Psychology.

INP 5136 Psychology of Legal Consultation (3). Practice in basic non-clinical areas in which psychologists assist attorneys, including jury selection, surveys, and simulations. Prerequisite: SOP 6098 or equivalent.

INP 6216 Personnel Selection (3). Characteristics of Personnel Selection systems used in organizations. Validity generalization, utility, applicant reactions, and legal cases pertaining to employee selection. Prerequisites: Proseminar in I/O and graduate level statistics course.

INP 6235 Applied Psychology of Training and Development (3). In-depth study of principles of behavior and attitude change in organizations. Topics include organization analysis, program design and implementation, and evaluation of results. Prerequisites: Acceptance to M.S. or Ph.D. program in Psychology and SOP 5616.

INP 6611 Organizational Stress (3). This seminar examines conceptualizations, causes, consequences, and correlates, of stress, strain, and coping in the workplace.

INP 6940 Strategies and Methods of Applied Psychological Research (3). A practicum course in the psychological research strategies and the application of computers in the analyses of psychological data.

LIN 5701 Psychology of Language (3). 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.

PCO 6206 Principles & Practices of Counseling & Psychotherapy (3). Examination of the principles & practices of counseling and psychotherapy derived chiefly from cognitive behavioral psychology. Prerequisite: Graduate standing.

PSB 6247 Biological Bases of Behavior (3). Advanced survey of biological bases of behavior. Topics include neuroanatomy, functional organization and electrochemical processes of the nervous system, and neural bases of learning and memory.

Prerequisites: Graduate standing or Permission of the instructor.

PSY 5206C Fundamentals of Design of Experiments (3). CRD and RCB designs. Latin square designs. Factorial, nested and nested-factorial experiments. Fixed, random and mixed models. Split-plot designs. Covariance analysis. Prerequisites: STA 3122 and 3123, or their equivalents.

PSY 5216 Proseminar: History and Systems of Psychology (3). An examination of the historical foundations of modern psychology and survey of current systems and schools of psychology. Prerequisites: Graduate standing or Permission of the instructor.

PSY 5246C Multivariate Analysis in Applied Psychological Research (3). Covers basic techniques of multivariate analysis, emphasizing the rationale and applications to psychological research. Includes multiple regression, Hotellings T#, MANOVA, principle component analysis, and factor analysis. Prerequisite: STA 3123 or equivalent; linear algebra recommended.

PSY 5605 Proseminar: History and Systems of Psychology (3). An examination of the historical foundations of modern psychology and survey of current systems and schools of psychology. Prerequisite: Graduate standing or Permission of the instructor.

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 the instructor.

PSY 5918 Supervised Research (VAR). Research apprenticeship under the direction of a research professor or a thesis advisor. Prerequisite: Full graduate admission.

PSY 5939 Special Topics in Psychology (3). Special topics will be announced in advance.

PSY 6945 Teaching of Psychology (1). An introduction to the art of college teaching and specifically the art of teaching psychology. It is designed for first-year graduate students to provide instruction and support for teaching college classes. Prerequisite: Graduate standing.

PSY 6956 Psychology Field Experience (VAR). Placement of students in applied settings for the purpose of developing community-based experience in the application of theoretical and methodological approaches. Prerequisite: Graduate standing.

PSY 6971 Master's Thesis in Psychology (3-6). Supervised research on an original research project submitted in partial fulfillment of Master's degree requirement.

PSY 7940 Supervised Teaching in Psychology (1). Supervised teaching under the guidance of faculty advisor. May be repeated only three times. Prerequisite: Doctoral graduate study.

PSY 7980 Dissertation Research in Psychology (VAR). Supervised research on an original research project submitted in partial fulfillment of doctoral degree requirements. Prerequisite: Admission to candidacy.

SOP 5058 Proseminar in Social Psychology (3). 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 5081 Psychological Influences on Health and Illness (3). Provides a comprehensive review of theory, research, and interventions in the field of health psychology. Prerequisite: Graduate standing or permission of the instructor.

SOP 5316 Theories and Methods of Cross-Cultural Research (3). An intensive analysis of contemporary theories and methods of cross-cultural research in psychology including topics such as: culture as a research treatment, differential incidence of personality traits, the use of ethnographics, 'etic' vs. 'emic' distinction. Prerequisite: Graduate standing or Permission of the instructor.

SOP 5616 Social Psychology of Organizations (3). 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 net-

works and their effects on task accomplishment and satisfaction will be included.

SOP 6098 Proseminar in Legal Psychology (3). The application of psychological research methods and psychological knowledge to contemporary issues in criminal and civil litigations. Prerequisite: Graduate standing.

SOP 6441 Seminar in Social Cognition (3). Provides a critical review of current theory and research on social cognition and its relationship to stereotyping, persuasion, attribution, and social perception. Prerequisite: Graduate standing.

SOP 6752 Psychology of Juries (3). A review of psychological research on juries and jury decision-making. Emphasis is placed on the critical analysis of jury research and relevant case law. Prerequisite: Graduate standing.

Religious Studies

Nathan Katz, *Professor and*

Chairperson

Christine Gudorf, *Professor*

Steven Heine, *Professor*

James Huchingson, *Associate*

Professor and Undergraduate

Program Director

Erik Larson, *Associate Professor*

Lesley Northup, *Associate Professor*

and Graduate Program Director

Terry E. Rey, *Assistant Professor*

Oren B. Stier, *Assistant Professor*

Zion Zohar, *D.H.L. Visiting Assistant*

Professor

Affiliated Faculty

Thomas A. Breslin

Bongkil Chung

Daniel A. Cohen

Paul Draper

Mitchell B. Hart

Marilyn Hoder-Salmon

Rositta Kenigsberg

David L. Lee

Mohiaddin Messhahi

Joseph F. Patrouch

Felix Pomeranz

Meri-Jane Rochelson

Master of Arts in Religious

Studies

FIU's Master of Arts in Religious Studies is designed to give students maximum flexibility in pursuing their research interests, while providing a firm foundation in both the general academic study of religion and the student's area of specialization.

The M.A. is a 36-credit hour program: 6 hours of core seminars, 12 hours of 'track' courses, 12 hours of electives, and 6 hours of thesis work.

Requirements for Admission

Application to the Master of Arts program in Religious Studies is made through FIU's Office of Admissions. The minimum requirements for admission include:

1. A baccalaureate degree from an accredited college or university;

2. Score of 1000 on the Graduate Record Examination (GRE) or an undergraduate GPA of 3.0;

3. Foreign students whose native language is not English must take the TOEFL (Test of English as a Foreign Language) and obtain a score of at least 550;

4. Two letters of reference from former instructors or others who are able to evaluate the applicant's potential for graduate study (to the Department);

5. Substantial writing sample (to the Department).

Applications for admission are available from the FIU Office of Graduate Admissions and are evaluated by the Departmental Graduate Studies Committee.

Degree Requirements

1. Two core seminars. The first, the 'Seminar on Sacred Texts,' will be offered every fall. The second core seminar, 'Modern Analysis of Religion,' will be offered every spring.

2. A track of four related courses chosen in consultation with the Graduate Program Director.

3. 12 hours of elective graduate seminars, courses, and independent study, selected in consultation with the Graduate Director and Thesis Director.

4. A thesis or research project. Students may take either six hours of thesis advisement or a three credit research seminar with three credits of thesis advisement.

Course Descriptions

Definition of Prefixes

GRE-Ancient Greek; HBR-Biblical

Hebrew, REL-Religion.

REL 5023 Religious Ritual (3).

Examines the critical relationship of ritual, religious practice and belief, and culture, while introducing the principles and methods of ritual studies. Prerequisite: Graduate standing or permission of the instructor.

REL 5025 Myth and Religion (3).

Investigates the role, function, and meaning of myth in religious experience and practice through an examination of specific myths, mythic patterns, and critical theories. Prerequisite: Graduate standing or permission of the instructor.

REL 5122 African-American Religion (3).

Survey of development of African-American Religions with emphasis on North American experience during slavery, Jim Crow and contemporary eras. Prerequisite: Graduate standing.

REL 5125 Religion and Public Life (3).

Examines the relationship of religion and government in the United States, with focus on the First Amendment and issues of separation of church and state. Prerequisite: Graduate standing.

REL 5130 North American Religion (3).

Historical examination of religious groups and influences in North America, focusing on their

contributions and cultural impact. Prerequisites: Graduate standing or Permission of the instructor.

REL 5131 Sects, Cults, and New Religions (3).

Explores and critically analyzes the multiplicity of new American religious movements and the unique combination of factors that has encouraged them. Prerequisites: Graduate standing or permission of the instructor.

REL 5145 Women and Religion (3).

Examines the influence of religion on social construction of gender and the definition of woman's nature and role, with a focus on Western developments. Prerequisite: Graduate standing or permission of the instructor.

REL 5149 Religion, Violence, and Conflict (3).

Is religion peaceful or violent? Theoretical analysis of the role of religion in violent, social and political conflicts, such as the Crusades, the Arab-Israeli conflict, and the Haitian Revolution. Prerequisite: Graduate standing.

REL 5160 Science and Religion (3).

Surveys the interaction between science and religion from conflict models to integration; special attention to specific natural sciences including cosmology and biology. Prerequisite: Graduate standing or permission of the instructor.

REL 5181 Religion and Ethics (3).

Investigation of methods, resources for ethics in world religions, and some examples of issues. Prerequisite: Graduate standing or permission of the instructor.

REL 5183 Ethics and Environment (3).

A study of cultural and religious sources of contemporary ethical attitudes and values about the environment. Also includes consequences of these for specific environmental issues. Prerequisite: Graduate standing or permission of the instructor.

REL 5184 Sex, Ethics, and Religion (3).

Religious treatment of sexual activity, desire and procreation in major religions, with special focus on contemporary scientific research on sexuality and spirituality. Prerequisite: Graduate standing.

REL 5192 Seminar in Mysticism (3).

The issues of consciousness, language, and morality in mystical tradition of the east and west, including Kabbalah, Neoplatonism, Sufism, Yoga, Taoism, and Zen. Prerequisite: Graduate standing.

REL 5208 Studies of the Dead Sea Scrolls (3). Overview of the Dead Sea Scrolls; explores the new techniques being used in their study. Prerequisite: Graduate standing or permission of the instructor.

REL 5211 Bible I: The Hebrew Scriptures (3). Extensive reading in the Hebrew Scriptures; how the various texts of the Hebrew Scriptures came to be written, and how they can be interpreted - both within the context of faith communities and within the cultural contexts out of which the texts were written. Prerequisite: Graduate standing or permission of the instructor.

REL 5232 Hebrew Exegesis I (3). Provides a comprehensive survey of the fundamentals of the language of the Hebrew Bible designed to equip the student for the task of exegesis. Prerequisite: Graduate standing.

REL 5233 Hebrew Exegesis II (3). A continuation of Hebrew Exegesis I emphasizing the reading of select passages of the Hebrew Bible to develop skills in translation and interpretation. Prerequisite: REL 5232 and graduate standing.

REL 5240 Bible II: The New Testament (3). History, theology, and interpretation methods of the New Testament. Prerequisite: Graduate standing or permission of the instructor.

REL 5242 New Testament and Qumran (3). Detailed investigation of the possible contacts between the New Testament and Qumran in such areas as Biblical Exegesis, Apocalypticism, Eschatology, and Messianism. Prerequisite: Graduate standing.

REL 5262 New Testament Greek Exegesis I (3). A detailed overview of the principles of Greek grammar that shows the student how to use Greek in the study of the New Testament. Prerequisite: Graduate standing.

REL 5263 New Testament Greek Exegesis II (3). Careful reading of selected passages of the New Testament and early Christian literature designed of selected to develop skills in translation and interpretation. Prerequisite: REL 5262 and graduate standing.

REL 5331 Religions of India (3). Topics include: religion in prehistoric and ancient India, classical Hindu texts and schismatic movements, medieval theism, the acculturation of extrinsic

religions, Hindu-Muslim-Sikh syncretism, and the modern period. Prerequisite: Graduate standing or permission of the instructor.

REL 5346 Seminar on Buddhism (3). The central doctrines and rituals of the Buddhist tradition, including the views on causality, mindfulness, monasticism, salvation, purity, and ethics in the Theravada, Tantric, and Zen schools. Prerequisite: Graduate standing.

REL 5352 Religions of East Asia (3). The history, philosophy, and cultural impact of the major religious traditions of East Asia, including Confucianism, Taoism, Buddhism, Shinto, and syncretic folk religions. Prerequisite: Graduate standing.

REL 5372 African Spirituality (3). Intensive investigation of select forms of traditional spirituality in sub-Saharan Africa, including ritual, sacrifice, and spirit possession, and Africanized Christian and Islamic devotion. Prerequisite: Graduate standing.

REL 5384 Rasta, Vodou, Santeria (3) Critical, sociological and phenomenological analysis of the history, beliefs, rituals, and social significance of Rastafarianism, Vodou, and Santeria on the Caribbean and the United States. Prerequisite: Graduate standing.

REL 5385 Native American Religions (3). An advanced study of Native American religions and the methods employed to investigate them. Attention will be given to traditional and contemporary expressions. Prerequisites: Graduate standing or permission of the instructor.

REL 5394 Jewish Mystical Texts (3). A study of the major movements and figures in the development of Jewish mysticism through its significant texts, from biblical times up to the present. Prerequisites: Graduate standing or permission of the instructor.

REL 5461 Religion and Philosophy (3). Examines the use of philosophical reasoning to justify religious belief or its rejection. Such topics as natural theology, atheism and fideism will be examined. Prerequisite: Graduate standing or permission of the instructor.

REL 5488 Theology and Liberation Movements (3). Comparison of Latin American, feminist, and African American theologies of liberation, including methods, social analysis, social location, interlocutor,

ecclesiology, theology, eschatology and use of scripture. Prerequisite: Graduate standing or permission of the instructor.

REL 5495 Interreligious Dialogue (3). The intellectual basis, the classical formulations, and the contemporary practice of interreligious dialogue in a variety of cultural settings. Prerequisites: Graduate standing or permission of the instructor.

REL 5501 History of Christianity I (3). Christianity from its origins to the Middle Ages. Doctrinal and organizational development of the church and characteristic aspects of its spiritual life. Prerequisite: Graduate standing or permission of the instructor.

REL 5502 Saints, Witches and Missionaries (3). Survey of movements, reforms, divisions, and major ideas within institutional Christianity, 1400 to present. Prerequisites: Graduate standing or permission of the instructor.

REL 5515 History of Early Christianity (3). Origin and growth of Christianity from the first to the fifth century, and the adaptation of its message to the Greco-Roman world. Prerequisites: Graduate standing or permission of the instructor.

REL 5565 Modern Catholicism (3). Theology and liturgical practice in the Roman Catholic Church from Trent (16th c) to the present, with primary and secondary sources. Prerequisite: Graduate standing or permission of the instructor.

REL 5600 Studies in Judaism (3). Historical overview of Jewish belief and practice, with special consideration of Jewish ritual life. Prerequisites: Graduate standing or permission of the instructor.

REL 5606 Rabbinic Judaism (3). The theology and ideologies of the 1700-year period in the history of Judaism known as Rabbinic Judaism. Prerequisite: Graduate standing or permission of the instructor.

REL 5613 Modernization of Judaism (3). Explores the ways in which religious beliefs and traditional concepts of Jewish self identity have changed as a result of emancipation and the participation of Jews in the modern Western world. Prerequisite: Graduate standing or permission of the instructor.

REL 5614 Ancient Judaism (3). The history, literature and characteristic institutions of Judaism from the Persian period to Amoraic times. Attention given to developments in the land of Israel and the diaspora. Prerequisite: Graduate standing or permission of the instructor.

REL 5615 Medieval Judaism (3). The works of major thinkers in Medieval Judaism, including Maimonides, Nahmanides, Halevi, Luzatto, and such topics as Jewish mysticism (Kabbalah) and Hasidism. Prerequisite: Graduate standing or permission of the instructor.

REL 6013 Modern Analysis of Religion: Classic Texts in Religious Studies (3). Critical reflection upon the nature and function of religion, as found in classics of the field. Prerequisite: Graduate standing or permission of the instructor.

REL 6195 Sociological Approaches to Religion (3). Sociological Method/Theory in religious studies scholarship on Religious Ritual around life cycle events. Individual and group projects. Prerequisites: Graduate standing or permission of the instructor.

REL 6322 Seminar in Western Religions (3). Similarities and differences in the three Western monotheistic religions of Judaism, Christianity and Islam during their historical development. Prerequisite: Graduate standing or permission of the instructor.

REL 6395 Seminar in Asian Religions (3). Asian religious traditions; texts, rituals, or artifacts. May be repeated with change in content. Prerequisites: Graduate standing or permission of the instructor.

REL 6442 Religion in the Contemporary World (3). Society and religion in processes of secularization and pluralism. Attention to religious interpretations of socio-cultural processes. Prerequisite: Graduate standing or permission of the instructor.

REL 6921 Colloquium (1). Students attend a minimum of three lectures, conferences, or professional presentations, with seminar report and discussion. May be repeated. Prerequisite: Graduate standing.

REL 6930 Pedagogy Workshop (1). Two-day teaching workshop offered by

the Academy for the Art of Teaching. Prerequisite: Graduate standing.

REL 6931 Pedagogy Seminar (1). Provide Teaching Assistants with pedagogical skills, such as lecture preparation, exam preparation and grading, advising and small group work. Prerequisite: Graduate standing

REL 6935 Seminar in Sacred Texts (3). Sacred texts with a common theme from several religions. Problems of interpretation are a central concern. Prerequisite: Graduate standing or permission of the instructor.

REL 6940 Teaching Religious Studies (3). Assist the instructor in an introductory course and attend seminar meetings. Topics: 'faith' vs 'objectivity' in the classroom; student diversity; religious studies as a profession; designing an introductory course. Prerequisite: Graduate standing or permission of the instructor.

REL 6971 Thesis (1-6). For students working on the thesis for the M.A. in Religious Studies. Prerequisites: Graduate standing and Permission of the instructor.

REL 6XXX Pedagogy Forum (1). Students attend at least six (6) teaching forums for certificate offered by the Academy for the Art of Teaching. Prerequisites: AAT Summer Teaching Workshop.

Sociology and Anthropology

Walter Gillis Peacock, Professor,
Chairperson, and Co-Director,
Laboratory for Social Vulnerability,
International Hurricane Center

William Avison, Professor

Jerald B. Brown, Associate Professor

Janet M. Chernela, Professor

Nadine Fernandez, Assistant Professor

Stephen M. Fjellman, Professor and Associate Dean, Honors College

Chris Girard, Associate Professor and Director, Graduate Program

Hugh Gladwin, Associate Professor and Director, Institute for Public Opinion Research

Guillermo J. Grenier, Associate Professor and Director, Center for Labor Research

Antonio Jorge, Professor

A. Douglas Kincaid, Associate Professor and Vice Provost, International Studies

Lilly M. Langer, Associate Professor, and Director, Center for Youth Development

Abraham D. Lavender, Professor

Barry B. Levine, Professor

Shearon A. Lowery, Associate Professor

Sarah Mahler, Associate Professor

Anthony P. Maingot, Professor

Kathleen Martin, Associate Professor

James A. Mau, Professor

Betty Hearn Morrow, Professor and Director, Laboratory for Social Vulnerability, International Hurricane Center

Lisandro Perez, Associate Professor and Director, Cuban Research Institute

Jean M. Rahier, Associate Professor, Acting Director, African-New World Studies

Robin Sheriff, Assistant Professor

Alex Stepick, Professor and Director, Immigration and Ethnicity Institute

Richard Tardanico, Associate Professor

William T. Vickers, Professor
Lois West, Associate Professor

Affiliated Faculty

William W. Darrow, Professor, Public Health

James Rivers, Director, Metro-Center

Jay R. Turner, Professor, School of Policy Management, Director, Life Course and Health Research Center

Dennis Weidman, Adjunct Professor and Assistant to the Provost

The Comparative Sociology Graduate Program at Florida International

University provides a unique opportunity to integrate the traditional strengths of sociology and anthropology by combining theory and empirical research with qualitative methods. The Program's faculty is especially noted for studying ethnic minorities, international development, gender, human ecology, labor, migration, theory, medical sociology and anthropology, and the sociology of disasters.

The Comparative Sociology Program provides professional training in social science research and theory for careers in higher education, government service, and the private sector. Requirements for the graduate program allow students to construct an individualized program that meets their specific interests. The graduate program is designed to facilitate the process of obtaining a doctorate in Comparative Sociology. Students may decide to obtain only a M.A. while working toward their Ph.D.

Admission Requirements

Each applicant to the Graduate Program in Comparative Sociology must complete a graduate application form and arrange to send transcripts of all prior college (undergraduate and graduate) work and official reports to the Graduate Records Exam (GRE) and TOEFL (if applicable) to the FIU's Office of Admissions. Each applicant should also send a separate letter of application to the director of the Comparative Sociology Graduate Program, along with copies of the above material. The letter of application should include a statement expressing the applicant's academic and professional objectives. Applicants are strongly encouraged to include examples of academic or other relevant professional work that may support their application. Applicants must request three letters of recommendation from individuals able to comment on their academic ability. The letters of recommendation should be sent directly to the Director of the Comparative Sociology Graduate Program.

The application file must be complete before the Comparative Sociology Graduate Program Committee will consider the applicant for admission. For those seeking admission in the Fall, the first deadline for receipt of application - including all supporting materials and letters of recommendation - is FEBRUARY 15th if the applicant desires an early

decision. The deadline for ALL applicants seeking assistantships is APRIL 1. Applicants will be considered for Fall, Spring, and Summer admissions as long as applications are completed and received by the following dates:

- Fall - February 15
(Early acceptance)
April 1
(Assistantship consideration)
July 1
(Final deadline)
- Spring - October 15
- Summer-April 1

To be admitted into the Comparative Sociology Graduate Program a student must meet the University's graduate admission requirements which can be found in Florida International University's Graduate Catalog and the following minimum standards:

1. Applicants must have a baccalaureate degree from an accredited college or university. Students pursuing a Ph.D. and who do not have a Masters in Anthropology, Sociology, Comparative Sociology, or a closely related field which includes a written thesis must obtain the Masters in Comparative Sociology at FIU on their way to completing the requirements of the Ph.D.

2. Applicants must have an undergraduate grade point average (GPA) of 3.25 or higher and a combined score of 1000 or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE). Applicants must submit both grade transcripts and GRE scores for consideration. The student must also have a GPA of 3.5 on any previous graduate work.

3. Applicants should request that three letters of recommendation from individuals able to judge a student's academic potential be sent directly to the Director of the Comparative Sociology Graduate Program, Department of Sociology and Anthropology, Florida International University, Miami, FL 33199.

4. Applicants are encouraged to submit examples of written work and other supporting materials.

5. Applicants whose native language is not English must take the TOEFL (Test of English as a Foreign Language) and obtain a score of 550 or higher.

While a baccalaureate major in sociology or anthropology is helpful, it is not required for admission to the program. However, newly admitted graduate students who have no prior

course work in sociology, anthropology, or statistics may be required to take one or more undergraduate courses as prerequisites for graduate-level courses. This decision is based on the evaluation of the student's undergraduate record by the Graduate Program Committee.

Financial Aid

Each academic year a limited number of graduate students are hired as teaching assistants. Teaching assistantships are allocated on a competitive basis and typically pay a substantial portion of tuition expenses and provide a stipend. To be considered for an assistantship the applicant must make such a request in writing to the Graduate Program Director. The awarding of teaching assistantships will be made by the Graduate Program Committee. Students receiving an assistantship are required to perform approximately 20 hours of teaching related duties per week and are required to participate in a one hour seminar related to teaching.

The M.A. Degree Requirements

The M.A. in Comparative Sociology is designed to provide the student with a strong foundation in theory and research skills. The M.A. in Comparative Sociology requires a total of 36 semester hours of credits, including 15 credits in core courses, 15 credits in electives, and a master's thesis based upon the student's research (including 6 credits of enrollment in Thesis hours). A maximum of six credits of graduate course work may be transferred from other institutions, subject to the approval of the Graduate Committee.

Required Courses (36):

SYA 6125	Classical Social Theories	3
SYA 6126	Contemporary Social Theories	3
SYA 6305	Research Methods I	3
SYA 6306	Research Methods II	3
ANG 5496	Social Research and Analysis	3
	Four electives in Sociology and Anthropology (must be at the 5000-level or higher)	12
	One elective in another department (must be numbered 5000 or above and be approved by the graduate advisor)	3
SYA 6975	Thesis	6

Graduation Requirements

To remain in good standing and to qualify for graduation, students must maintain a graduate GPA of 3.0 or higher. A grade of "B" or higher must

be received for all core courses. All M.A. course requirements must be met and thesis must be completed and accepted after defending before their Thesis Committee. All requirements for the M.A. in Comparative Sociology, including the successful defense of the thesis, must be completed within six (6) years of enrollment in the graduate program.

The Ph.D. Degree Requirements

The Ph.D. program in Comparative Sociology incorporates and builds on the M.A. program. The Ph.D. program consists of 90 semester hours of course work that includes the 36 hours necessary to obtain the M.A. degree in comparative sociology at FIU. The 90 hours of course work are divided into three major areas: core courses, substantive area courses, and specialty/elective courses. The remaining course work will be made up of thesis/dissertation hours. In addition to course work, students are required to meet successfully the following: a thesis requirement; a written general examination; a post-thesis review, write and defend a dissertation proposal, and write and defend a dissertation.

Thesis Requirement

As part of the Doctoral Program in Comparative Sociology, students are expected to complete the requirements of a Masters Degree in Comparative Sociology, students are expected to complete the requirements of a Masters Degree in Comparative Sociology, including the writing and defense of a thesis, and the completion of the post-thesis review process. The process of writing and defending a thesis is an integral and essential part of the Ph.D. program. Students who have obtained a Masters and written a thesis in Anthropology, Sociology, Comparative Sociology, or related field may petition the Graduate Program Committee for exemption from the thesis requirement. After meeting the thesis requirement and completing masters related course work, a student must undergo a Post-Thesis Review and be approved to continue in the Ph.D. program

Course Work

The Ph.D. curriculum in Comparative Sociology consists of a total of 90 semester hours. In addition to a minimum of 30 thesis and dissertation hours, students must successfully complete 60 hours of course work divided into three areas: Core Courses (21 hours); Substantive Area Courses

(12 hours); and Specialty/Elective Courses (27 hours).

Core Courses

The foundation of the core curriculum includes five required courses: SYA 6125 (Classical Social Theories), SYA 6126 (Contemporary Social Theories), ANT 5496 (Social Research and Analysis), SYA 6305 (Research Methods I), and SYA 6306 (Research Methods II). These courses are designed to provide a foundation in general theory and methods. The methods courses will provide the student with a survey of qualitative and quantitative methods including computer-based statistical analysis. All students are expected to become thoroughly familiar with the use of computers for work in comparative sociology.

In addition, students are required to complete two additional core courses, one in methods and the other in theory, which are designed to provide them with an understanding of more advanced theory and methods, while meeting individual professional goals. Students may select the courses most consistent with their goals. However, they are encouraged to seek the advice of the Graduate Director and their advisor when making this decision.

Substantive Area Courses

Students will choose two substantive areas, from among those offered by the department. Each student will be required to take a minimum of two courses within each of their chosen areas. Current areas reflect the substantive specialties in which the faculty of Comparative Sociology have particular expertise: Cultural Analysis; Development and Social Change; Gender/Family; Medical; and Ethnicity, Race, and Migration. The required load of two courses in each substantive area is designed to provide added breadth to students' general knowledge.

Specialty/Elective Courses

In order to facilitate the creation of an individually tailored area of specialty, students may select 27 hours of graduate course work at Florida International University as specialty/elective courses. The specialty area course work should be developed by students with guidance from their major professor and research committee. At least two—but no more than four—elective courses must be from outside the department.

Ph.D. General Examination

After successfully completing the Post-Thesis Review and subsequent core and substantive course work, each student will take a written Ph.D. General Examination. This examination will be conducted in accordance with the FIU Graduate Policies and Procedures Manual and the Department's General Examination guidelines. The General Examination will include questions in four areas: theory, methods, and the two substantive areas selected by the student. (See Comparative Sociology Graduate handbook for details).

Dissertation Proposal and Defense

After passing the General Examination, students will develop a dissertation proposal. Upon completing the proposal and elective/specialty course work, the student must orally defend the dissertation proposal before their Research Committee. The Proposal defense will consist of a comprehensive oral defense of the dissertation proposal and relevant literature as determined by the student's research committee. The proposal defense serves as the candidacy examination for the Comparative Sociology Graduate Program. A copy of the approved proposal must be filed with the Dean of Graduate Studies at least one full semester prior to defense of the dissertation. The student will generally defend the proposal during the semester that required course work is completed. Upon passing the Dissertation defense, the student is admitted to candidacy status. Only after successfully defending the dissertation proposal may a student register for dissertation credits (SYA 7980).

The Dissertation Defense

After successfully defending the dissertation proposal, students will conduct research and complete their dissertations. Upon completion of their dissertation and authorization of the research committee, the student will then defend their dissertations before their research committee.

Course Descriptions**Definition of Prefixes**

ANG-Anthropology Graduate; ANT-Anthropology; SYA-Sociological Analysis; SYD-Sociology of Demography and Area Studies; SYG-

Sociology, General; SYO-Social Organization; SYP-Social Processes. F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

ANG 5403 Ecological Anthropology (3). Theories of human adaptation, including environmental determinism, possibilism, cultural ecology, materialism, and evolutionary ecology. Credit for both ANT 3403 and ANT 5548 will not be granted. Prerequisite: Graduate standing or Permission of the instructor. (SS)

ANG 5496 Social Research and Analysis (3). A graduate overview of the scientific methods used in intercultural studies. Includes the philosophical basis of science, research design, and hypothesis testing using both secondary and original data. Students will conduct a research project in this course. Prerequisite: Graduate status or permission of the instructor. (F)

ANG 5905 Directed Individual Study (1-20). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

ANG 5915 Directed Field Research (1-20). Permission of the instructor required.

ANG 6303 Comparative Feminisms (3). Course examines feminisms and feminist movements in a global context. Taking several geocultural areas as examples, the course analyzes the discourse of cultures, feminisms, and feminist movements. Prerequisites: One graduate level course on gender or permission of the instructor. (S)

ANG 6339 Seminar on Latin America (3). Analysis of Latin American cultures and classes using case studies. Students read a series of anthropological or sociological works and discuss them in a seminar format. Prerequisite: Graduate standing or Permission of the instructor. (F)

ANG 6497 Qualitative Research Methods (3). Qualitative research methods in anthropology and sociology. Includes participant-observation, field work, key informants and in-depth interviewing, visual techniques, ethical issues, and reflexivity. (F)

ANG 6932 Seminar in Human Ecology (3). Analysis of human ecology using case studies. Students read a series of works on human adaptations and discuss them in a

seminar format. Prerequisite: ANT 3403 or ANT 6548 or equivalent.

ANT 5318 American Culture and Society (3). Anthropological analysis of the cultures and subcultures of the United States, focusing on the social, ethnic, and regional organizations and their corresponding value and symbolic systems. Prerequisite: Graduate standing or Permission of the instructor. (F)

ANT 5XXX Advanced African Diaspora Cultures and Performativity (3). Examines different approaches adopted by African diaspora studies scholars in social and cultural anthropology, and recent theoretical texts and debates in Performance Studies. Prerequisites: Permission of Instructor.

ANT 5XXX Representations of Africa and Africans in Films (3). Analyzes representations of Sub-Saharan Africa and Africans in various cinematic traditions (including documentaries) and examines these representations in socioeconomic and political contexts. Prerequisites: Permission of Instructor.

ANT 6302 Gender Identity in Comparative Perspective (3). Comparative examination of cultural and socioeconomic factors defining gender identities and relations in western and non-western societies. Includes selected cross-cultural case studies. Prerequisites: Graduate Standing or Permission of the instructor. (S)

ANT 6319 The African Diaspora: Anthropological Perspectives (3). History and cultures of Africans outside of Africa, with a special emphasis on the African experience in the Americas. Topics covered include slavery, class, gender, ethnicity, and religion. Prerequisite: Graduate standing.

ANT 6469 Graduate Medical Anthropology (3). Concepts and methods in the field of medical anthropology. Importance of culture in governing the type and frequency of disease in a population, the way people explain and treat disease, and responses to the delivery of modern medicine. Prerequisite: Graduate standing. (S)

ANT 7491 Contemporary Theory in Social Anthropology (3). Graduate seminar examining current theoretical issues in social anthropology. Prerequisite: SYA 6125 and SYA 6126 or permission of the instructor.

SYA 5135 Sociology of Knowledge (3). 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. (F)

SYA 5909 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of the instructor. (F,S,SS)

SYA 5941 Directed Field Research (VAR). Permission of the instructor required. (F,S,SS)

SYA 6125 Classical Social Theories (3). Classical social theories of the 19th and early 20th centuries. Includes the ideas of such thinkers as Spencer, Comte, Durkheim, Marx, Weber, Simmel, Pareto, Morgan, Tylor, and Boas. Prerequisite: Graduate standing or Permission of the instructor. (F)

SYA 6126 Contemporary Social Theories (3). The major currents and trends in contemporary sociological theory. Emphasis on the application of theories to specific research issues and practices. Prerequisite: Graduate standing or Permission of the instructor. (S)

SYA 6305 Research Methods I (3). The first in a two course sequence on research methods in comparative sociology. Includes research design and hypothesis testing, participant observation, interviewing techniques and survey research. Prerequisite: Graduate standing or Permission of the instructor. (F)

SYA 6306 Research Methods II (3). The second in a two-course sequence on research methods in comparative sociology. Includes the quantitative analysis of sociological research data, and the preparation of written reports and articles. Prerequisite: SYA 6305 and ANG 5496 or equivalent. (S)

SYA 6307 Research Methods III (3). Advanced quantitative analysis of sociological research stressing problems in measurement, data collection and quality, and analysis techniques. Prerequisites: SYA 6306 and STA 3112 or STA 6167 or STA 5236 or Permission of the instructor.

SYA 6925 Graduate Colloquium in Comparative Sociology (1). Colloquiums presented by faculty, visiting scholars, and graduate students on topics of current research interest. Repeatable. Prerequisite: Graduate standing. (F,S)

SYA 6941 Internship in Applied Sociology (1-9). Practical application in a supervised setting outside of the classroom of knowledge acquired in the classroom. Hours may vary.

SYA 6943 South Florida Area Study (3). Current issues in South Florida Studied through large-scale survey research conducted by class members. Provides experience in research techniques and the development and testing of theory. Prerequisites: SYD 6625 and SYA 6305. (S)

SYA 6959 Writing Research Proposals (3). Development of skills in writing research proposals. Prerequisite: Three completed semesters of graduate work.

SYA 6975 Thesis (1-6). Registration for students working on the thesis for the M.A. in Comparative Sociology or the M.A. in International Studies. Prerequisite: All other course work for the M.A. in Comparative Sociology or International Studies. (F,S,SS)

SYA 7651 Foundations of Social Theory Construction (3). Seminar exams assumptions of social theory. Topics include objectivity in the social sciences, social science concepts and explanations, reductionism, and the bases of social theory construction. (S)

SYA 7930 Special Topic in Comparative Sociological Research (3). A detailed exploration into particular research methodologies, approaches and techniques relevant to Comparative Sociology. Topic will vary depending upon the instructor. Course may be repeated. Prerequisites: SYA 6305 and SYA 6306 or Permission of the instructor.

SYA 7940 Practicum Supervised Teaching (1-9). Practical application in a supervised setting of knowledge acquired in the classroom. Hours may vary. (F,S,SS)

SYA 7941 Field Research (1-9). Research projects or certain aspects of research in a field situation carried out by one or more students under the direction of a faculty member. Topics vary. Usually selected on an individual basis. Hours may vary. (F,S,SS)

SYA 7967 Preparation: Preliminary Doctoral Exam (1-9). Preparation for the preliminary doctoral exam under the direction of a faculty member. Hours may vary. (F,S)

SYA 7979 Advanced Research (1-9). Research projects or certain aspects of

research carried out by one or more students under the direction of a faculty member. Topics vary; selected on an individual basis. Hours may vary. (F,S,SS)

SYA 7980 Dissertation (1-9). Hours taken by students to work on the dissertation under the supervision of a major professor and the doctoral committee. Hours may vary. (F,S)

SYD 5045 Population and Society (3). The study of the processes that determine the size and composition of human populations. Emphasis on demographic transition theory and the antecedents and consequences of differential growth rates throughout the world. Prerequisite: Graduate standing or permission of the instructor.

SYD 6236 International Migration and Refugees (3). Comparative analysis of the causes, consequences, and policies concerning population movements across national borders. Includes review of various theories of labor migration. Students will conduct research on a migration or refugee topic. Prerequisite: Graduate standing or Permission of the instructor. (F)

SYD 6325 Seminar in the Comparative Sociology of Gender (3). The examination of women's and men's roles, status's, and life opportunities from a historical and comparative perspective. Current theoretical developments in the study of gender are emphasized. Prerequisite: Graduate standing or Permission of the instructor. (S)

SYD 6427 Seminar in Comparative Urban Issues (3). Current theoretical developments in the study of urbanism, including the evolution and growth of cities, spatial and social structures, migration, and the critical problems of social life in cities. Prerequisite: Graduate standing or Permission of the instructor. (F)

SYD 6615 Seminar in Comparative Analysis of Selected Regions (3). Comparative social analysis using studies from two or more world regions. Students read a series of works on issues such as bureaucracy, modernization, and development, and discuss them in a seminar format. Prerequisite: Graduate standing or Permission of the instructor. (S)

SYD 6616 Comparative Stratification Seminar (3). Comparative analysis of causes and consequences of contemporary inequality in an inter-

national context. Emphasizes theoretical and methodological approaches to comparative case studies. Prerequisites: Graduate standing or Permission of the instructor. (S)

SYD 6625 South Florida Socio-cultural Systems (3). The sociological and anthropological analysis of South Florida. Presents tools for regional study including demography, cultural ecology, and ethnic group-centered symbolic systems. Prerequisite: Graduate standing or permission of the instructor. (F)

SYD 6655 Seminar on Social Change in Asia (3). An examination of social change in contemporary Asia, including the relationships between states, the changing political economies, and the role of social movements and cultural institutions in change. Prerequisite: Graduate standing or Permission of the instructor.

SYD 6705 Comparative Analysis of Ethnicity and Race (3). Consideration of major theories of ethnicity and race and analysis of selected ethnic groups in various world regions. Includes the study of race and ethnic issues in Miami and the South Florida region. (S)

SYD 6715 Comparative Adolescent Cultures (3). Examines the adolescent cultures of different ethnic, class, and national groups from an anthropological and sociological perspective. The primary focus is on how adolescents construct their own social groups and what meaning they attribute to these constructions. Prerequisite: Graduate standing.

SYD 6816 Advanced Sociological Theories of Gender (3). Examines sociological theory as it deals with gender from a feminist perspective. Prerequisite: Graduate standing. (S)

SYD 6901 Special Topics in Sociology (3). An examination of specific themes and topics in sociology. The theme may vary from semester to semester. With a change in content, the course may be repeated. Prerequisite: SYA 6125 and SYA 6126 or permission of the instructor.

SYD 7903 Directed Readings (1-9). Readings under the direction of a faculty member focusing on one of the tracks in the Ph.D. program. Hours may vary. (F,S,SS)

SYG 6932 Special Topics in Disaster Studies (3). Case studies of major disasters used to explore topics such as

impact of gender, class, ethnicity, and age on vulnerability, response, and outcome; effects of larger political and economic systems; and relationship to social change. May be repeated with change of topic.

SYO 6135 Families and Social Change (3). Comparative study of the family as an institution adapting to social and economic conditions. Cultural variation in marriage, parenthood and gender roles. Historical influences on the pluralistic American family. Credit for both SYO 4130 and SYO 6135 will not be granted. Prerequisite: Graduate standing or permission of the instructor. (F)

SYO 6306 Political Sociology (3). Examines social relations of power in groups, organizations, and national and global structures; also patterns of state formation, state-society relations, and sources of political change. Prerequisite: Graduate standing. (S)

SYO 6405 Graduate Medical Sociology (3). Examination of the social significance of health, illness, and medicine in the U.S. as compared to other societies. Includes disease type and distribution as well as a critique of health care professions, organizations, and policies. Prerequisite: Graduate standing. (F)

SYO 6XXX Sociology of Mental Health (3). Examination of the social and social psychological processes that influence mental health and illness. Analysis of the social consequences of mental illness including issues associated with social mobility and stigma. Prerequisites: Graduate standing.

SYP 5447 Sociology of International Development (3). To introduce the basic concepts and questions of the field as applied to the international arena. To illustrate the common areas of social science analysis in dealing with questions of international development. (S)

SYP 6306 Comparative Social Movements (3). Comparative analysis of social movements and social change, including peasant movements, environmentalism, civil rights, feminism, and nationalism. Competing theories of social movements are examined. Prerequisite: Graduate standing or permission of the instructor. (F)

SYP 6734 Seminar: Ethnic Minority Aging in U.S. (3). Sociological perspective on aging among

racial/ethnic minority groups in U.S. Includes social, demographic, and cultural influences on the status of minority elders in the areas of family and community.

SYP 6907 Seminar in Comparative Social Change (3). The cross-cultural and comparative analysis of contemporary social change, including processes of social action such as terrorism, reformism, revolution, and the use of electoral systems and democratic processes. Prerequisite: Graduate standing or permission of the instructor. (F)

Statistics

Jie Mi, *Associate Professor and Chairperson*

Carlos W. Brain, *Associate Professor and Graduate Program Director*

Ling Chen, *Associate Professor*

Zhenmin Chen, *Associate Professor*

Gauri L. Ghai, *Associate Professor*

Ramon Gomez, *Instructor*

Sneh Gulati, *Associate Professor*

Ina Parks Howell, *Lecturer*

Golam Kibria, *Assistant Professor*

Laura Reisert, *Instructor*

Samuel S. Shapiro, *Professor*

Hassan Zahedi-Jasbi, *Associate Professor*

Jyoti N. Zalkikar, *Associate Professor*

Master of Science in

Statistics

The Master of Science in Statistics at Florida International University is primarily an applied statistics program. It offers a balance of statistical theory, statistical methodology, and optionally, an area application concentration. The program offers a thesis option and a non-thesis option. Regardless of the concentration or thesis option, the program requires a total of 36 credit-hours as follows: six core courses (18 hours), four elective courses or an area of concentration (12 hours), and either a thesis (6 hours) or two additional elective courses (6 hours) and a comprehensive examination.

Admission Requirements

To be admitted into the program, applicants must meet the university's graduate admission requirements (see Office of Admissions in this catalog) and the following departmental requirements:

1. Bachelor's degree in statistics, mathematics, or in a related field from an accredited university or college. A bachelor's degree in some other discipline is also acceptable provided the applicant has a suitable mathematics background.
2. A 3.0 or higher (on a 4-point scale) GPA in mathematics and statistics courses.
3. Three letters of recommendation from persons familiar with the applicant's academic qualifications.
4. Approval of the departmental graduate committee.

Core Courses: (18)

STA 6244 Data Analysis I
STA 6246 Linear Models

STA 6247	Data Analysis II
STA 6326	Mathematical Statistics I
STA 6327	Mathematical Statistics II
STA 5206	Design of Experiments

Elective Courses: (12)

A student may select four courses from Lists A, B, and C or may opt for an area of concentration (see below).

Concentration Area: (12)

Students interested in a concentration in Biostatistics/Environmetrics must select two courses from List A and two track-related electives. At least one of these electives must be from outside the department.

Students interested in a concentration in Reliability Analysis/Quality Control must select two courses from List B and two track-related electives. At least one of these electives must be from outside the department.

All electives must be approved by the graduate advisor.

List A: Biostatistics/Environmetrics

STA 6176	Biostatistics
STA 6678	Environmental Statistics
STA 5826	Stochastic Processes

List B: Reliability Analysis/Quality Control

STA 5676	Reliability Engineering
STA 5664	Advanced Quality Control
STA 5826	Stochastic Processes

List C: Elective Statistics Courses

STA 5207	Topics in Design of Experiments
STA 5236	Regression Analysis
STA 5507	Nonparametric Methods
STA 5906	Independent Study
STA 6505	Analysis of Categorical Data
STA 6807	Queueing and Statistical Models
STA 6940	Supervised Statistical Consulting
STA 7707	Multivariate Methods I
STA 7708	Multivariate Methods II

Elective Courses from Outside of the Department:

Elective courses from outside of the department must be approved by the graduate advisor.

Thesis Option: (6)

Students opting to write a thesis must enroll in STA 6971, Thesis Research and STA 6972, Master's Thesis (6 credit-hours total).

Non-Thesis Option: (6)

Students who opt not to write a thesis must take two additional elective courses selected from List C or from outside of the department. These courses must be approved by the graduate advisor.

Graduation Requirements

1. Grade and GPA requirements: a) cumulative GPA of 3.0 or higher in all courses, b) a grade of 'B' or higher in each core course, and c) a grade of 'C' or higher in each concentration or elective course.
2. A candidate who opts to write a thesis must successfully defend the thesis orally and have the written thesis approved by his/her thesis committee.
3. A candidate who chooses the non-thesis option must take and pass a comprehensive examination.

Students must follow all regulations of the University's Division of Graduate Studies.

Course Description

Definition of Prefixes

STA - Statistics. MAP - Mathematics/Applied.

MAP 5117 **Mathematical and Statistical Modeling (3)**. Study of ecological, probabilistic, and various statistical models. Prerequisites: MAC 2313, COP 2210, MAS 3105; and STA 4322 or STA 3164 or STA 3033.

STA 5105L **SPSS Data Analysis Lab (1)**. Topics include: Entering data from various sources, data checking, descriptive statistics, graphing data, crosstabulations, t-tests, correlation and regression, ANOVA, and reliability. Prerequisite: A statistics course or concurrent enrollment in a statistics course, and graduate standing or permission of the instructor.

STA 5106 **Intermediate Statistics I (3)**. Power, measures of assoc., measurement, ANOVA: one-way and factorial, between and within subjects expected mean squares, planned comparisons, apriori contrasts, fixed, random, mixed models. This course may be of particular interest to behavioral sciences. Prerequisites: STA 3111 and graduate standing. (F)

STA 5107 **Intermediate Statistics II (3)**. Correlation and regression both simple and multiple, general linear model, analysis of covariance, analysis of nominal data, analysis of categorical data. This course may be of particular interest to behavioral sciences.

Prerequisite: Permission of the instructor. (S)

STA 5126/PSY 5206 Fundamentals of Design of Experiments (3). CRD and RCB designs. Latin square designs. Factorial, nested and nested-factorial experiments. Fixed, random and mixed models. Split-plot designs. Covariance analysis. Prerequisites: STA 3123 or STA 3112 or equivalent.

STA 5206 Design of Experiments I (3). Design and analysis of completely randomized, randomized block, Latin square, factorial, nested and related experiments. Multiple comparisons. Credit for both STA 4202 and STA 5206 will not be granted. Prerequisite: STA 4322 or STA 3164 or STA 3033 or (STA 3163 and STA 4321).

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 Regression Analysis (3). Simple, multiple and polynomial regression, analysis of residuals, model building and other related topics. Credit for both STA 4234 and STA 5236 will not be granted. Prerequisites: STA 3164 or STA 3123 or STA 3112, or STA 6167.

STA 5446-STA 5447 Probability Theory I and II (3-3). 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 2313.

STA 5507 Nonparametric Methods (3). Distribution-free tests: sign, Mann-Whitney U, Wilcoxon signed rank, Kruskal-Wallis, Friedman, etc. Rank correlation, contingency tables and other related topics. Credit for both STA 4502 and STA 5507 will not be granted. Prerequisite: First course in statistics.

STA 5664 Advanced Statistical Quality Control (3). Review of statistical methods useful in quality improvement. Statistical process control. Taguchi's and Deming's philosophies. Control charts. Process capability analysis. Acceptance

sampling plans. Prerequisites: STA 3033 or STA 3163 or STA 4321 or equivalent.

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 4322.

STA 5800 Stochastic Processes for Engineers (3). Probability and conditional probability distributions of a random variable, bivariate probability distributions, multiple random variables, stationary processes, Poisson and normal processes. Prerequisites: STA 3033, MAC 2313, MAP 2302.

STA 5826 Stochastic Processes (3). 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, queueing 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 (1-6). Individual conferences, assigned reading, and reports on independent investigation.

STA 6166 - STA 6167 Statistical Methods in Research I and II (3-3). For non-mathematical sciences graduate students. A non-calculus exposition of methods and applications of statistical techniques for the analysis of data. Statistical packages will be used. Prerequisite: Graduate standing. (F,S)

STA 6176 Biostatistics (3). Statistical analysis of data encountered in medical sciences. Analysis of count data, Kaplan-Meier survival analysis, Cox proportional hazards model, analysis of covariance, logistic regression, etc. Prerequisite: STA 3163 or equivalent.

STA 6244 Data Analysis I (3). Exploratory data analysis; testing of

distributional assumptions; Chi-square tests, tests for means, variances, and proportions. Prerequisites: STA 3033, STA 4322, or STA 6327

STA 6246 Linear Models (3). Introduction to the theory of linear models. Distribution of linear and quadratic functions of normal vectors. Development of inferential procedures for simple and other more complex linear models. Prerequisites: MAS 3105, STA 6247, and STA 6327.

STA 6247 Data Analysis II (3). Analysis of variance, regression analysis. Analysis of covariance, quality control, correlation, empirical distributions. Prerequisites: STA 6244 and MAS 3105.

STA 6326 Mathematical Statistics I (3). An introduction to the theories underlying statistical analysis. Basic concepts of probability theory, combinatorial analysis, random variables, and expectation. Prerequisite: MAC 2313.

STA 6327 Mathematical Statistics II (3). Estimation of parameters, tests of hypotheses, regression, non-parametric methods, analysis of variance, and multivariate concepts. Prerequisite: STA 6326.

STA 6505 Analysis of Categorical Data (3). Analysis of contingency tables, measures of association, logit and loglinear models. Prerequisites: STA 6167 or STA 5107 or STA 5236.

STA 6678 Environmental Statistics (3). Review of probability theory and probability processes. Bernoulli, Poisson, and normal processes. Dilution of pollutants. Lognormal processes. Prerequisites: STA 3164 and MAC 2312.

STA 6807 Queueing and Statistical Models (3). Review of probability concepts, basic probability distributions, Poisson process, queueing models, statistical models. Prerequisites: Permission of the instructor, MAC 2312 and either STA 3033 or STA 4321.

STA 6940 Supervised Statistical Consulting (3). Formulation of statistical problems from client information, consulting session management, interpersonal aspects of consulting, problem solving techniques. Prerequisites: Permission of the instructor, STA 4102, STA 6247, and STA 6327.

STA 6971 Thesis Research (1-6). Supervised research on theoretical or

applied statistics leading to a thesis. Repeatable. Prerequisite: Permission of student's program committee.

STA 6972 Master's Thesis (1-6). Thesis completion and submission in partial fulfillment of Master's degree requirements. Prerequisite: Permission of student's program committee.

STA 7707 Multivariate Methods I (3). Multivariate normal, Wishart and Hotelling's distributions. Inferences for one and two mean vectors. Profile analysis. One- and two-way MANOVA. Multivariate multiple regression. Prerequisite: STA 3123 or STA 3112. (F)

STA 7708 Multivariate Methods II (3). Principal components analysis. Factor analysis. Canonical correlation analysis. Discriminant analysis. Cluster analysis. Multidimensional scaling. Prerequisite: STA 7707. (S)

Visual Arts

Carol Damian, *Associate Professor and Chair*

Tori Arpad, *Assistant Professor, Ceramics*

Pip Brant, *Assistant Professor, Painting/Drawing*

Ralph F. Buckley, *Professor, Sculpture*

William Burke, *Professor, Ceramics*

James M. Couper III, *Professor, Painting*

Eduardo Del Valle, *Professor, Photography*

Richard Duncan, *Associate Professor, Drawing/Printmaking*

Mirta Gomez, *Professor, Photography*

Daniel Guernsey, *Assistant Professor*

Ellen Jacobs, *Professor, Jewelry/Glass*

Clive King, *Professor, Drawing and Director, Graduate Studies*

Kate Kretz, *Assistant Professor, Painting/Drawing*

William Maguire, *Professor, Photography*

Juan Martinez, *Associate Professor, Art History*

Dahlia Morgan, *Professor and Art Museum Director*

Manuel Torres, *Professor, Art History*

Barbara Watts, *Associate Professor, Art History*

Master of Fine Arts in Visual Arts

The M.F.A. in Visual Arts is an intense, production-oriented program directed toward individual development. The curriculum is designed for maximum flexibility to accommodate both those seeking advanced training in a particular studio area and those whose interests may involve more media cross-over. Graduates of the program will be prepared for careers as professional artists.

Graduate Admission Requirements

1. Bachelor of Fine Arts, Bachelor of Arts, or an equivalent degree.
2. A grade point average of 3.0 or higher at the undergraduate level and/or a score of 1000 on the verbal and quantitative sections of the Graduate Record Examination (GRE).
3. A score of a least 550 on the Test of English as a Foreign Language (TOEFL) and a score of 50 on a Test of spoken English (TSE) for international students.
4. Graduate Admission Application

Applicants must submit the following to the Graduate Secretary, Department of Visual Arts, University Park Campus, Miami, Florida 33199

1. Department copy of the Admission application submitted to the Admissions Office
2. A statement of intent (stating area of concentration and if seeking financial assistance).
3. Three letters of recommendation, preferably from previous instructors and/or person's familiar with applicants academic and artistic background.
4. 20 slides of recent work
5. SASE for return of slides.

Deadline date for Application is February 15 for Fall admission.

Degree Requirements

The M.F.A. requires 60 semester hours of course work at the graduate level to be distributed as follows:

Tutorial Instruction in Studio Area Concentration	30
Intro to Graduate Study in Visual Arts	3
Art History	12
Studio Art Seminar	3
Written Account of Work	6
Electives	6

Research for the written account of work will be directed by a faculty committee composed of the candidates's major professor, a member of the studio faculty, and an art historian. The Committee will be formed during the first semester of enrollment and will meet periodically to supervise the candidate's progress during the entire period of study.

Upon completion of twenty hours of course work and prior to the completion of thirty hours, the candidate must submit his/her work to the faculty committee, which will determine the student's progress and capability for continued enrollment in the MFA program. This review will focus on issues such as growth of the student's work, the consistency of production at the graduate level, and the demonstrated ability to fulfill the expectations of a graduate degree. All of the student's work completed by this time will be assembled and reviewed, and the student will be questioned about specific issues related to his/her work. Successful completion of this examination is prerequisite for continuing as a candidate for the degree.

In the last semester of enrollment, the candidate will present a graduate exhibition to be displayed in the Art

Museum at F.I.U. or at an appropriate alternative space. The exhibition will be curated by the MFA candidate and the members of his/her committee. At the same time, the committee will conduct an oral examination with the candidate. This will take place in the exhibition space during the display of the candidate's graduate exhibition. It will focus on the exhibition and the development of the candidate's work. This examination must be completed successfully in order for the candidate to be awarded his/her degree.

Course Descriptions

Definition of Prefixes

ARH-Art History; ART-Art; PGY-Photography.

ARH 5796 Critical Studies in the Visual Arts (3). Introduction to the methods and concerns of recent art history. Discussion of students' work in context of the contemporary art world. Prerequisite: ARH 4450 and ARH 4470.

ARH 5897 Special Topics in Art History (3). Rotating special topics on the graduate level in art history. May be repeated with change of topic. Prerequisite: ARH 4450 and ARH 4470.

ARH 5907 Directed Studies (1-6). A group of students, with the approval of the art faculty, may select a master teacher of theory, research or criticism in selected areas as film, painting, sculpture, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a semester before course is offered. May be repeated.

ARH 5913 Research (1-6). Art history, criticism, and theory in areas not covered by the present program and which the student wishes to study. Prerequisite: Permission of the instructor. May be repeated.

ARH 5XXX Graduate Art of Spain and her Colonies (3). Course explores art of Spain from 1492 through early 19th century, the encounter between Spain and the Americas after the conquest, and the art of the colonies. Graduate level readings. Prerequisites: Permission of Instructor.

ART 5159C Jewelry and Metals (3). Advanced jewelry and metalwork for M.S. in Art Education students. May be repeated. Prerequisite: Jewelry & Metalwork IV or equivalent or permission of the instructor.

ART 5185C Glassblowing (3). Advanced glassblowing for M.S. in Art Education students. May be repeated. Prerequisite: Glassblowing IV or equivalent or permission of the instructor.

ART 5xxxC Time Based Media (3). Graduate work with art forms that are primarily dependent on the passage of time in their construction, documentation, and exhibition. This includes, but is not limited to, live and recorded performance art, public or mixed-media installation, video and computer generated art.

ART 5xxxC Issues of Contemporary Art Seminar (3). Students will attend scheduled seminars led by appropriate faculty. Discussions will examine issues relating to art being currently produced. Exhibitions and publications will be referenced, and professional artists will participate.

ART 5390C Drawing (3). Advanced drawing for M.S. in Art Education students. May be repeated. Prerequisites: ART 4304C, or equivalent, or Permission of the instructor.

ART 5391C Figure Drawing (3). Advanced figure drawing for M.S. in Art Education students. May be repeated. Prerequisites: ART 4333C, or equivalent, or Permission of the instructor.

ART 5408C Printmaking (3). Advanced printmaking for M.S. in Art Education students. May be repeated. Prerequisites: ART 4404C, or equivalent or Permission of the instructor.

ART 5580C Painting (3). Advanced painting for M.S. in Art Education students. May be repeated. Prerequisites: ART 4513 or equivalent, or Permission of the instructor.

ART 5685C Advanced Time Art (3). Advanced course to refine students' skills in electronic and digital media production. Students are required to produce a multidisciplinary project. Prerequisite: ART 3681.

ART 5740C Sculpture (3). Advanced sculpture for M.S. in Art Education students. May be repeated. Prerequisites: ART 4705C or equivalent, or Permission of the instructor.

ART 5741C Figure Sculpture (3). Advanced Figure Sculpture for M.S. in Art Education students. May be repeated. Prerequisites: Figure Sculpture IV or Permission of the instructor.

ART 5790C Ceramics (3). 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 5907C 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 semester before course is offered. May be repeated.

ART 5910C Research (1-6). Students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credit hours granted. May be repeated.

ART 5930C Special Topics in Studio Art (3). Rotating special topics in Studio Arts. May be repeated with change of content.

ART 5938C Studio Art Pedagogy (1). Instruction in the principles and methods of teaching in the area of visual arts; specifically the application of these principles to the studio situation. Prerequisite: Graduate standing.

ART 5939C Studio Art Seminar (3). Students will locate and discuss their own work within the context of the contemporary art world. Also, issues and practical concerns for the professional artist will be addressed, such as dealing with galleries, grant writing and business procedures. Prerequisite: Issues of Contemporary Art Seminar.

ART 5XXX Graduate Installation Art (3). This topic course will explore he genre of installation and site-specific art through history and in terms of its ongoing influence on contemporary visual culture. MFA students will be required to develop slide lectures in conjunction with installation. Prerequisites: Permission of Instructor.

ART 6XXX Graduate Prospectus and Exhibition Preparation (3). Final preparation of work for museum exhibition accompanied by a written discussion of work. Required for MFA students. Prerequisites: Completion of graduate program courses.

PGY 5116C Color Photography (3). Advanced color photography for MS in

Art Education students. (See PGY 4113). Prerequisite: PGY 4113C.

PGY 5425C Photography (3). Advanced photography for M.S. in Art Education students. May be repeated. Prerequisite: PGY 4003C, or equivalent, or Permission of the instructor.

Certificate Programs

African-New World Studies Certificate Program

Director,

TBA

Advisory/Coordinating Committee
Jean-Robert Cadely, (*Modern Languages*)

Steve Fjellman, (*Sociology/Anthropology*)

Chris Gray, (*History*)

Tometro Hopkins, (*English*)

Hyacinth Johnson, (*Dade County Public Schools*)

Rosa Jones (*Vice Provost, Academic Affairs*)

Joyce Shaw Peterson, (*History*)

Jean Rabier, (*Sociology/Anthropology*)

Vicki Silvera (*Library*)

Linda Spears Bunton (*Education*)

Linda Strong-Leek, (*English*)

Clarence Taylor, (*History*)

S. Lee Woods, (*Education*)

Donna Weir-Soley, (*English*)

The African-New World Studies Certificate Program seeks to provide graduate-level instruction in the diverse field of Africana Studies.

Specifically, the African-New World Studies Certificate Program seeks to:

1. Provide an excellent university education, while both challenging and stimulating students/participants to contribute to the development of their communities;
2. Generate new knowledge and research opportunities within the field of Africana Studies.
3. Serve the university's external community with special programming to meet educational needs;
4. Foster greater understanding of the global nature of African peoples.

General Requirements (18)

Two courses (six credit hours) from the following list:

AMH 5935	Topics in American History	3
HIS 5930	Special Topics	3
ANT 6319	The African Diaspora: Anthropological Perspectives	3
LIN 6937	Linguistics Seminar	3
LIT 5487	Texts and Culture	3
PHI 5934	Special Topics	3
AFH 5905	Readings in African History	3

Electives

The four remaining courses (12 credit hours) may be drawn from a variety of elective courses. The following courses

represent examples of elective courses appropriate for the completion of the certificate program. Students should consult with advisors since new courses are frequently added, special topics courses sometimes concern African/diaspora topics, and some courses have prerequisites and enrollment stipulations.

College of Arts and Sciences

ECP 6605	Urban and Regional Analysis	3
ECP 7606	Urban and Regional Economics	3
ECS 6436	Economics of Caribbean Migration	3
ECS 7435	Economics of the Caribbean	3
INR 5087	Ethnicity and the Politics of Development	3
LIN 6572	Structure of a Non-Indo-European Language	3
POS 5932	Topics in Urban Politics	3
POS 6146	Seminar in Urban Politics	3
CYP 6766	The Psychology of Cross-Cultural Sensitization in a Multicultural Context	3
DEP 6145	Psychology of Culture and Childhood	3
DEP 6465	Psychology of Culture and Aging	3
SOP 5316	Theories and Methods of Cross-Cultural Research	3
SPN 5536	Afro-Cuban Culture	3
SPW 5515	Advanced Studies in Hispanic Folklore	3
ANT 6319	The African Diaspora: Anthropological Perspectives	3
SYA 6943	South Florida Area Study	3
SYD 6625	South Florida Sociocultural Systems	3
SYD 6427	Seminar in Comparative Urban Issues	3
SYD 6705	Comparative Analysis of Ethnicity and Race	3

College of Education

EDE 5267	Education of the Child in Urban Society	3
EDE 5941	Practicum I in Urban Education	3
EDE 5942	Practicum II in Urban Education	3
EDF 5851	Socio/Cultural Conflict in Educational Change	3

EDF 5880	Intercultural Education: National and International Perspectives	3
MHS 6428	Cross Cultural Counseling	3

Certificate in Geographic Information Systems

Zhaohui Jennifer Fu, *Director,*

(*Library GISRSAL*)

Coordinating Committee

Michael McClain, (*Environmental Studies*)

Dean Whitman, (*Earth Sciences*)

Fang Zhao, (*Civil and Environmental Engineering*)

The primary goal of the Certificate in Geographic Information Systems (GIS) is to provide students with an interdisciplinary concentration in GIS. The Programs will be composed of primarily graduate level courses in the areas of Geographic Information Systems, computer and/or database programming, and statistics analysis. Subject areas to which GIS is relevant can range from Civil Engineering, Earth Sciences, International Relations, Environmental Studies, Economics/MBA, Urban Planning, Biology, Public Health, etc.

Prescribed Courses and Other Requirements

The certificate program will require 18 credit-hours (6 courses) as follows:

Required Courses: (9)

EVR 5935	Introduction to GIS and Data Analysis	3
GLY 5994	GIS and Spatial Analysis	3
GLY 5734	Remote Sensing in the Earth Sciences	3

Electives: (9)

CGN 5320	GIS Applications for Civil and Environmental Engineering	3
CGN 6930	Applied GIS Projects	3
CGN 6325	Advanced GIS for Civil and Environmental Engineering	3

or
Computer/database Programming Course (e.g. COP3175, or COP3337) (3 credits)

or
Any 3 graduate credits in the areas of Civil Engineering, Earth Sciences, International Relations, Environmental Studies, Economics/MBA, Urban Planning, Biology, Public Health, etc.

Notes: Offering of elective GIS courses may change as new courses are

developed. New courses cover possibly, for instance, the areas of "Advanced GIS and Database Management," "GIS Applications in Landscape Modeling," "Remote Sensing Lab," "Web-based GIS applications," and "Spatial Statistics." Students must take at least one (1) graduate level GIS course (3 credit-hours) out of the (3) elective (9 credit-hours) courses.

Geographic Information Systems (GIS) is a fast developing technology that can be applied to many areas of natural and social sciences, such as Civil Engineering, Earth Sciences, International Relations, Environmental Studies, Economics/MBA, Landscape Architecture, Urban Planning, Biology, Public Health, etc. There is an increasing demand for GIS specialists in the job market as a result of vast development of spatial/geographic database management programs. Furthermore, there is an existing faculty body from various academic departments engaged in GIS teaching and research at FIU.

For more information on the Certificate in Geographic Information Systems, contact the Director, Zhaohui Jennifer Fu, at the GIS lab in GL 275D or call (305) 348-3138 or email fujen@fiu.edu, or visit <http://gislab.fiu.edu>

Conflict Resolution and Consensus Building Professional Certificate Program

Margaret Wilson, *Certificate Coordinator, (Labor Studies)*
Coordinating Committee

Dawn Addy, *(Labor Studies)*
 Carlos Alvarez, *(Educational Foundations/Prof. Studies)*

David Bray, *(Environmental Studies)*
 John Carpenter, *(Educational Foundations)*

Michele Ciccazzo, *(Dietetics & Nutrition)*

Emily Copeland, *(International Relations)*

Ronald Cox, *(Political Science)*
 Marvin Dunn, *(Psychology)*

Damian Fernandez, *(International Relations)*

Guillermo Grenier, *(Labor Studies)*
 Constantine Hadjilambrinos, *(Environmental Studies)*

Thomas Humphries, *(Labor Studies)*
 Nathan Katz, *(Religious Studies)*

Donald Klinger, *(Public Administration)*

Karl Magnusen, *(Management)*

Michelle Marks, *(Psychology)*

Virginia McCoy, *(Public Health)*

Diann Newman, *(Hospitality Management)*

Bruce Nissen, *(Labor Studies)*

Walter Peacock, *(Sociology/Anthropology)*

Terry Rey, *(Religious Studies)*

Rebecca Salokar, *(Political Science)*

Adele Smith, *(Hospitality Management)*

Mary Tanke, *(Hospitality Management)*

The Conflict Resolution and Consensus Building Certificate Program offers students at the post-baccalaureate level the opportunity to obtain an interdisciplinary concentration in the study of conflict resolution and to obtain an intellectual background in the theories and methodologies of conflict resolution and consensus building.

In modern society, the ability of various sectors to understand one another's perspectives, to learn methods to reduce potential conflicts, and to develop mechanisms to work toward building consensus is extremely critical. The issues that may be explored in this area of study are multidisciplinary and lend themselves to a broad-ranging interdisciplinary certificate which will allow students both to gain an understanding of the major concepts and issues in the field and also concentrate in a more specific area of study such as the workplace, the community, the educational institution or the international arena.

The certificate enhances interdisciplinary connections among Labor Studies, Management, International Relations, Latin American Studies, Sociology, Anthropology, Political Science, Education, Hospitality, Public Administration, Public Health, Dietetics and Nutrition, Environmental Studies, Religious Studies, and Psychology and complements studies in other fields, including the newly approved Law School.

Prescribed Courses and Other Requirements

The certificate program will require 18 credit hours (6 courses) of study at the graduate level from the following certificate program course listing, or others approved by the certificate program advisor. Three tracks of study are proposed. For each track there are two required core courses and four additional electives. The courses should be understood to be a partial

list; students should consult with the advisor of the certificate program about current course offerings. Students are required to take courses from a minimum of two departments.

Core Courses: All Tracks (6 hours)

LBS 5485	Fundamentals of Conflict Resolution	3
LBS 5931	Topics in the Philosophy and Methods of Conflict Research	3

A research or methods course from related disciplines to be chosen from various disciplines in consultation with advisor.

Track I: Workplace Conflict Resolution (12 hours)

Labor Studies

LBS 5406	Collective Bargaining and Labor Relations	
LBS 5464	Labor Arbitration	
LBS 5465	Introduction to Mediation	
LBS 5155	Workplace Diversity	
LBS 5507	Labor and Employment Law	
LBS 5xxx	Topics in Labor Studies	
MAN 6066	Business Ethics	
MAN 6121	Interpersonal Behavior and Analysis	
MAN 6209	Organizational Design and Behavior	
MAN 6295	Conflict in Organizations	
MAN 6405	Labor Relations	
MAN 6411	Collective Bargaining Topics	

Education

EDA 6225	Labor Relations in Education	
EDA 6232	School Law	
EDA 7233	Education Law and Ethics	
EDA 7236	Law and Higher Education	
EDF 5851	Social/Cultural Conflict	
EDF 6636	Inter-cultural Studies: A Qualitative and Quantitative Analysis	
EDS 6050	Supervision and Staff Development	

Hospitality

HFT 5545	Leadership Training for Team Building	
HFT 6225	Multi-cultural Human Resources Management in Hospitality	
HFT 6226	Motivation and Leadership	

HFT 6246	Organizational Behavior in the Hospitality Industry	Public Health PHC 6311	Environmental Health and Risk Management	INR 5507	International Organizations I
Public Administration		PHC 6355	Occupational Health and Safety	INR 6089	International Relations and Human Rights
PAD 5043	Government and Minority Group Relations	PHC 6356	Fundamentals of Industrial Hygiene	Labor Studies LBS 5465	Introduction to Mediation
PAD 5427	Collective Bargaining in the Public Sector	PHC 6315	Public Health and Environmental Management	LBS 5658	Labor Movements and Economic Development
PAD 6028	Policy Analysis and Planning	Religious Studies REL 5149	Religion, Violence and Conflict	Political Science INR 5105	American Foreign Policy
URS 6130	Human Resource Policy and Management	Sociology/Anthropology ANT 5318	American Culture and Society	INR 5087	Ethnicity and the Politics of Development
URS 6436	Professionalism and Ethics	ANT 6302	Gender Identity in Comparative Perspective	INR 5007	Seminar in International Politics
Public Health		ANT 6319	The African Diaspora	INR 6080	Seminar on Non-State Actors
PHC 6589	Health Promotion in Institutional Settings	SYD 6236	International Migration and Refugees	INR 6705	Seminar in International Political Economy
Dietetics and Nutrition		SYD 6325	Seminar in Comparative Sociology of Gender	Management MAN 6601	International Management
HUN 6259	Management of Nutrition Services	SYD 6616	Comparative Stratification Seminar	MAN 6615	International Labor-Management Relations
Track II: Community Conflict Resolution (12 hours)		SYD 6625	South Florida Socio-Cultural Systems	MAN 6xxx	Colloquium In Managing Organizational Ethics
Education		SYD 6705	Comparative Systems of Ethnicity and Race	Psychology CYP 5534	Groups as Agents of Change
EDF 5851	Social/Cultural Conflict	SYO 6135	Families and Social Change	CYP 6766	The Psychology of Cross-Cultural Sensitization in a Multi-Cultural Context
EDF 5880	Inter-Cultural Education: National and International Perspectives	SYP 6907	Seminar in Comparative Social Change	Public Health PHC 6115	International Public Health
EDF 6608	Social, Philosophical and Historical Foundations of Education	Track III: Global Issues and Conflict Resolution (12 hours)		Dietetics and Nutrition HUN 5195	International Nutrition: Problems, Policies and Management
EDF 6636	Inter-cultural Studies: A Qualitative and Quantitative Analysis	Education EDF 5880	Inter-Cultural Education: National and International Perspectives	Religious Studies REL 5149	Religion, Violence and Conflict
EDG 5707	Cultural and Cross-Cultural Studies	EDF 5881	Social/Cultural Conflict	Sociology/Anthropology ANT 6302	Gender Identity in Comparative Perspective
Environmental Studies		EDF 6636	Inter-cultural Studies: A Qualitative and Quantitative Analysis	ANT 6319	The African Diaspora
EVR 5355	Environmental Resource Policy	EDF 6658	Selected Topics in International Development Education	SYD 5447	Sociology of International Development
Labor Studies		EDG 5707	Cultural and Cross-Cultural Studies	SYD 6236	International Migration and Refugees
LBS 5930	Topics in Labor Studies	Environmental Studies EVR 5350	International Organizations and Environmental Politics	SYD 6325	Seminar in Comparative Sociology of Gender
LBS 5465	Introduction to Mediation	International Relations INR 5xxx	International Negotiations and Conflict Resolution	SYD 6616	Comparative Stratification Seminar
LBS 5466	Family Mediation	INR 5086	Islam and International Relations	SYD 6705	Comparative Systems of Ethnicity and Race
LBS 5467	Civil Mediation	INR 5087	Ethnicity and Politics of Development	SYP 6907	Seminar in Comparative Social Change
Political Science		INR 5409	International Relations Law I		
POS 5045	Seminar in American Politics				
POS 5146	Seminar in Urban Politics				
POS 5326	Seminar in Class Analysis				
POS 5932	Topics in Urban Politics				
Psychology					
CYP 5534	Groups as Agents of Change				
CYP 6766	The Psychology of Cross-cultural Sensitization in a Multi-cultural Context				
SOP 6752	Psychology of Juries				

Course Descriptions

Definition of Prefixes

LBS-Labor Studies

F-Fall semester offerings; S-Spring semester offerings; SS-Summer semester offerings.

LBS 5155 Workplace Diversity (3). Students examine theoretical debates surrounding workforce participation of women and minorities; historical position of these groups in labor force; social phenomena that contributes to discriminatory practices and development of policies to eliminate discriminatory practices.

LBS 5406 Collective Bargaining and Labor Relations (3). A comprehensive study of major issues and themes in American collective bargaining. Includes origins of collective bargaining, labor law, unionization, contract negotiation, patterns in contract content, impact of external laws, public sector unions, grievance arbitration and interest arbitration. Prerequisite: Permission of Instructor.

LBS 5464 Labor Arbitration (3). Study of labor dispute resolution with emphasis on grievances, fact-finding, and arbitration.

LBS 5465 Introduction to Mediation (3). Examines the role of mediation in resolving civil, commercial, family, public, and workplace disputes. Incorporates mediation principles and skills, different approaches to mediation, and current research in mediation. Prerequisite: Permission of Instructor.

LBS 5466 Family Mediation (3). Provides a comprehensive understanding of conflict resolution, Power and balances, emotional and psychological issues, negotiation techniques as well as the development of practical skills in the field of family mediation. Prerequisite: Permission of Instructor.

LBS 5467 Civil Mediation (3). A comprehensive understanding of the field of civil mediation as well as the development of the practical skills to be a civil mediator. Prerequisite: Permission of Instructor.

LBS 5485 Fundamentals of Conflict Resolution (3). Survey of the major contemporary theories of organizational functioning and the management of conflict within and among organizations in a globalized world. Theories that center primarily within the fields of dispute resolution, sociology, and social interaction/group

theory will be emphasized. Prerequisite: Permission of Instructor.

LBS 5507 Labor and Employment Law (3). Familiarizes the student with the legal issues and rules regarding unionization of employees, the collective bargaining process, the relationship between the employee and his/her union, and the administration of collective bargaining agreements. Examines the legal framework within which collective bargaining occurs and also familiarizes students with additional issues of rights in employment. Prerequisite: Permission of Instructor.

LBS 5658 Labor Movements and Economic Development (3). Relationships between union and economic development strategies in developing/recently developed countries; emphasis on social movement unionism and unions in Latin America and Asia. Prerequisite: Permission of Instructor.

LBS 5930 Topics in Labor Studies (1-3). Selected topics or themes in Labor Studies. Themes will vary from semester to semester. With a change in content, course may be repeated. May include field work. Prerequisite: Graduate standing.

LBS 5931 Topics in the Philosophy and Methods of Conflict Resolution (3). Provides an examination of the philosophy, methods, and research in the field of conflict resolution. The particular content and orientation of the course may vary according to the particular focus examined. Prerequisite: Permission of Instructor.

Latin American and Caribbean Studies Certificate Program

Theodore R. Young, *Director and Associate Professor, Modern Languages*

LACC's programs at Florida International University lie at the heart of the University's commitment to international studies. Over the last decade, LACC has become one of the strongest Latin American and Caribbean studies programs in the United States, joining a small cadre of nationally distinguished programs at major research universities.

LACC is an academic center and a think tank, promoting more than 200 area studies courses per year through its certificate programs and 16 participating departments. Through a

multidisciplinary approach to Latin America and the Caribbean, LACC carries out a trifold institutional mission of rigorous instruction, cutting-edge research, and public education.

Associated faculty members are internationally recognized for their original research, particularly on Central America and the Caribbean. Their contributions are consistently published in peer review journals. Since 1979 the number of LACC faculty has increased by 300%. Another 50% increase is anticipated in the next decade.

The certificate program is designed to supplement the degree programs of full-time graduate students, and serve the interests of working professionals seeking a broader understanding of Latin American and Caribbean issues.

Students registered in the certificate program receive regular mailings announcing course offerings, seminars, foreign study opportunities, and other special events. They also receive *LACC News*, a newsletter reporting on people and activities concerning Latin American and Caribbean affairs at FIU. An important component of the Latin American and Caribbean studies program at FIU is the library. The Latin American and Caribbean collection of the FIU library system has surpassed 35,000 volumes, excluding government documents. Regionally, the collection is strongest in works on Cuba and Central America, with substantial strength in Caribbean countries as well. LACC itself receives about 150 publications, mainly consisting of newsletters and research report series.

Students interested in the certificate program should contact the graduate student advisor at LACC. Call (305) 348-2894 for an appointment, or email: MALACS@fiu.edu.

Certificate Requirements

The certificate program requires a total of 15 credit hours of course work with a grade of "B" or higher. Courses should come from the certificate program listing below or be otherwise approved by the certificate program faculty advisor. Specific requirements follow:

1. Either: LAH 5935 Topics in Latin American History: Formation of Latin America, or LAH 5935 Topics in Latin American History: The National Period. This requirement may be waived for history majors or others who have taken an equivalent course.

These students must choose an approved second course outside their major.

2. Nine hours in the student's major department, with a grade of "B" or higher. Three of these hours must be for independent study or thesis research on Latin America and/or the Caribbean.

3. Three hours outside the student's major.

4. Reading competence at the level of graduate research in Spanish, Portuguese, or French, demonstrated by a proficiency exam administered by the Department of Modern Languages.

The following courses fulfill certificate requirements. These courses should be understood as a partial list; students should consult with certificate program advisors about the current course offerings.

Economics

ECS 5027	Economic Development of Emerging Nations
ECO 5709	World Economy
ECS 7015	Economics: Theory Development
ECS 7026	Economics: Planning and Policy
ECS 7405	Economics of Latin America
ECS 7435	Economics of the Caribbean
ECS 7445	Economics of Central America

History

LAH 5905	Readings in Latin American History
LAH 6915	Research in Latin American History
LAH 5935	Topics in Latin American History
LAH 6906	Advanced Readings in Latin American History

International Relations

INR 5087	Ethnicity and the Politics of Development
GEO 5415	Topics in Social Geography*
INR 5607	International Relations and Development
INR 5935	Topics in International Relations*
INR 6605	Contemporary International System
INR 6056	Environment and Development

Modern Languages

FIL 5527	Latin American Film
SPN 5525	Spanish American Culture
SPW 5237	Traditional Spanish American Novel

SPW 5286	Contemporary Spanish American Novel
SPW 5358	Graduate Seminar: Borges
SPW 5359	Poetry of Pablo Neruda
SPW 5475	19th Century Latin American Literature
SPW 5387	Women and Literature
SPW 5575	Spanish American Modernism
SPW 5756	Mexico in Poetry

Political Science

CPO 5036	Politics of Development
CPO 5935	Topics in Comparative Politics*
CPO 5091	Seminar in Comparative Politics*
CPO 6307	Seminar on South American Politics
CPO 6376	Seminar in Central American Politics
INR 6936	Seminar in Inter-American Politics

Sociology/Anthropology

ANT 5548	Ecological Anthropology
ANT 6931	Seminar on Latin America
SYD 6325	Seminar in Comparative Sociology of Gender
SYD 6705	Comparative Analysis of Race and Ethnicity
SYP 6907	Seminar in Comparative Social Change
SYP 5447	Sociology of International Development
SYP 6306	Comparative Social Movements
SYD 6236	International Migration and Refugees
SYD 6427	Seminar in Comparative Urban Issues

*When course includes enough Latin American and Caribbean content to justify inclusion in certificate program. Student should obtain advanced written approval from advisor.

MERCOSUR Graduate Certificate Program

Theodore R. Young, *Director and Associate Professor, Modern Languages*

The Latin American and Caribbean Center (LACC) at Florida International University established the MERCOSUR Studies Certificate to promote the study of an area of significance to the United States. Founded as a customs union in 1991 through the Tratado de Asunción, the MERCOSUR (Mercado Común del Sur – Common Market of the South)

includes Argentina, Brazil, Paraguay and Uruguay. In 1996, Bolivia and Chile became associate members. In the past few years, the MERCOSUR has become Florida's principal trading partner and its importance to this state will increase dramatically over the next few years.

Through a focus on the challenges posed by the implementation of the Mercosur scheme, this certificate enables students to develop an expertise on the countries of the Southern Cone. The Certificate program supplements the degree programs of advanced undergraduate and graduate students, and serves the interests of working professionals seeking a broader understanding of the issues affecting the countries of the Southern Cone as they approach the process of regional integration.

Course requirements

The certificate program requires a total of 15 hours of course work with a grade of "B" or higher for graduate students. Courses should come from the certificate program listing below or must otherwise be approved by the certificate program advisor. Specific requirements follow.

1. CPO 6936 Seminar on South American Politics offered every Spring semester. This requirement may be waived for Political Science majors or others who have taken an equivalent course. These students must select an approved second course outside their major.

2. Six credit hours from the selected list of classes below in the student's major.

3. Three hours of independent study or thesis research on a topic related to the MERCOSUR.

4. Three credit hours from the selected list of classes below outside the student's major.

5. Reading competency in Spanish or Portuguese demonstrated by a proficiency exam administered by the Department of Modern Languages.

The following courses fulfill certificate requirements. These courses should be understood as a partial list. Students should consult with advisors of the certificate program about current course offerings.

Economics

ECP 5707	International Economic Problems and Policies
ECS 5027	Economic Problems of Emerging Nations
ECS 7405	Economics of Latin America

ECO 7705	International Trade	SYD 6907	Seminar in Comparative Social Change
ECP 7606	Urban and Regional Economics	SYP 5447	Sociology of International Development
History		For more information, contact: Therodore R. Young, Ph.D. Director of Academic Programs Latin American and Caribbean Center Florida International University University Park, DM 353 Miami, Florida 33199 Phone: (305) 348-2894, Fax: (305) 348-3593, or email: MALACS@fiu.edu	
LAH 5905	Readings in Latin American History: Brazil		
LAH 5905	Readings in Latin American History: Argentina		
International Relations			
INR 5087	Ethnicity and the Politics of Development		
INR 5315	Foreign Policy Analysis		
INR 5607	International Relations and Development		
INR 6056	Environment and Development		
INR 6209	Comparative Foreign Policy of Latin America		
INR 6605	Contemporary International Systems		
INR 6706	Political Economy of International Relations		
Latin American Studies			
LAS 6003	Survey of Latin America		
LAS 6930	Intro Latin American Data Analysis		
Modern Languages			
POR 1130	Portuguese I		
POR 1131	Portuguese II		
POR 2200	Intermediate Portuguese		
FIL 5527	Latin American Film		
SPN 5525	Spanish American Culture		
SPW 5237	The Traditional Spanish-American Novel		
SPW 5286	Contemporary Spanish-American Novel		
SPW 5358	Prose and Poetry of Jorge Luis Borgess		
SPW 5359	Poetry of Pablo Neruda		
SPW 5475	19th Century Latin American Literature		
SPW 5515	Advanced Studies in Hispanic Folklore		
SPW 5575	Spanish American Modernism		
SPW 6495	The Latin American Experience: Literature and Film		
Politics			
CPO 5934	Topics in Comparative Politics: Latin America		
CPO 5936	Seminar in South America Politics		
CPO 5036	Politics of Development		
INR 6936	Seminar in Inter-American Politics		
Sociology/Anthropology			
ANT 6931	Seminar on Latin America		

College of Arts and

Sciences

Dean	Arthur W. Herriott
Associate Dean, Curriculum and Advise ment	Fred Bouma
Associate Dean, College Relations	Gisela Casines
Associate Dean, Research	Kelsey Downum
Associate Dean, Budget and Planning	Ivelaw Griffith
Associate Dean, Biscayne Bay Campus,	Joyce Peterson
Associate Dean, Faculty and Graduate Studies	Mark Szychman
Assistant Dean, Advancement	Lee Theisen
Director, School of Computer Science	Jainendra Navlakha
Director, School of Music	Fredrick Kaufman

Chairpersons and Program

Directors:

African-New World Studies	TBA
Biological Sciences	John Makemson
Chemistry	Kenneth Furton
Earth Sciences	Rosemary Hickey-Vargas
Economics	Panagis Liossatos
English	Donald Watson
Environmental Studies	David Bray
History	Kenneth Lipartito
Humanities	Kenneth Rogerson
International Relations	Damian Fernandez
Latin American and Caribbean Studies	Eduardo Gamarra
Liberal Studies	Janat Parker
Mathematics	Enrique Villamor
Modern Languages	Isabel Castellanos
Philosophy	Paul Warren
Physics	Stephan Mintz
Political Science	Nicol Rae
Psychology	Marvin Dunn
Religious Studies	Nathan Katz
Sociology and Anthropology	Walter Peacock
Statistics	Jie Mi
Theatre and Dance	Leroy Clark
Visual Arts	Carol Damian
Women's Studies	Suzanna Rose

Faculty

Ajitabh, Kaushal, Ph.D. (Massachusetts Institute of Technology), Assistant Professor, Mathematics
Akache, Walid, M.S. (University of Miami), Instructor, School of Computer Science
Aladro, Gerardo, Ph.D. (Pennsylvania State University), Associate Professor, Mathematics
Allen, James, Ph.D. (University Wisconsin-Madison), Assistant Professor, Biological Sciences
Almiral, Jose, Ph.D. (University of Strathclyde, Scotland), Assistant Professor, Chemistry
Anbarci, Nejat, Ph.D. (The University of Iowa), Associate Professor, Economics
Anderson, William, Ph.D. (Swiss Federal Institute of Technology- Zurich), Assistant Professor, Earth Sciences and Southeast Environmental Research Center
Apanius, Victor, Ph.D. (University of Pennsylvania), Assistant Professor, Biological Sciences
Arnold, St. George Tucker, Jr., Ph.D. (Stanford University), Associate Professor, English
Arpad, Tori, M.F.A. (University of Arizona), Assistant Professor, Visual Arts
Arraras, Astrid, Ph.D. (Princeton University), Assistant Professor, Political Science
Augenblick, John, D.M.A. (University of Miami), Associate Professor, School of Music
Avison, William, Ph.D. (University of Alberta, Canada), Professor, Sociology/Anthropology
Bahrack, Lorraine, Ph.D. (Cornell University), Professor, Psychology.
Baker, Joan L., Ph.D. (University of Washington), Associate Professor, English
Baldor, Aurelio, M.A. (Florida International University), Instructor, Modern Languages
Barrett, Lynn, M.F.A. (University of North Carolina-Greensboro), Associate Professor, English
Barton, David, Ph.D. (University of Cambridge), Professor, School of Computer Science
Becel, Pascale, Ph.D. (University of California-Davis), Associate Professor, Modern Languages
Becker, David, Ph.D. (Massachusetts Institute of Technology), Associate Professor, Chemistry
Beer, Michelle, Ph.D. (University of Pittsburgh), Associate Professor, Philosophy
Bennett, Bradley C., Ph.D. (University of North Carolina- Chapel Hill), Associate Professor, Biological Sciences and Environmental Studies
Berk, Lynn, Ph.D. (Purdue University), Professor, English
Berk, Toby, Ph.D. (Purdue University), Professor, School of Computer Science
Bhat, Mahadev, Ph.D. (University of Tennessee-Knoxville), Associate Professor, Environmental Studies
Bigger, Charles, Ph.D. (Florida State University), Associate Professor, Biological Sciences
Blansett, Lisa, Ph.D. (University of North Carolina-Chapel Hill), Assistant Professor, English
Boeglin, Werner, Ph.D. (University of Basle, Switzerland), Associate Professor, Physics
Bone, Richard, Ph.D. (University of West Indies, Jamaica), Professor, Physics
Boodhoo, Ken, Ph.D. (University of the West Indies, Jamaica), Associate Professor, International Relations
Bouma, Frederick, Ph.D. (University of Illinois), Associate Dean, College of Arts and Sciences
Bowe, Gregory, M.A. (University of New Hampshire), Instructor, English
Boyce Davies, Carole, Ph.D. (University of Ibadan, Nigeria), Professor, English
Boyd III, John H., Ph.D. (Indiana University), Associate Professor, Economics
Brain, Carlos W., Ph.D. (West Virginia University), Associate Professor, Statistics
Brant, Sharon, M.F.A. (University of Wyoming), Assistant Professor, Visual Arts
Bray, David, Ph.D. (Brown University), Associate Professor and Chairperson, Environmental Studies
Breslin, Thomas A., Ph.D. (University of Virginia), Associate Professor, International Relations and Vice President, Research and Graduate Studies
Brown, Christopher, Ph.D. (University of Delaware), Professor, Biological Sciences
Brown, Jerry, Ph.D. (Cornell University), Associate Professor, Sociology/Anthropology
Brown, Joann, M.A. (University of Miami), Instructor, Theatre and Dance-Speech Communication Program

- Buckley, Ralph, M.F.A.** (*Maryland Institute*), Professor, Visual Arts
- Burke, William, M.F.A.** (*State University of New York at New Paltz*), Professor, Visual Arts
- Burns, Kristine, Ph.D.** (*Ball State University*), Assistant Professor, School of Music
- Cadely, Jean-Robert, Ph.D.** (*Université du Québec-Montreal*), Assistant Professor, Modern Languages
- Cai, Yong, Ph.D.** (*Nankai University, China*), Assistant Professor, Chemistry
- Camayd-Freixas, Erik, Ph.D.** (*Harvard University*), Assistant Professor, Modern Languages
- Campbell, Colton, Ph.D.** (*University of California-Santa Barbara*), Assistant Professor, Political Science
- Campbell, Gary, M.A.** (*University of Miami*), Assistant Professor, School of Music
- Caputo, Nina, Ph.D.** (*University of California-Berkeley*), Assistant Professor, History
- Carvajal, Manuel, Ph.D.** (*University of Florida*), Professor, Economics
- Casines, Gisela, Ph.D.** (*University of Florida*), Associate Professor, English and Associate Dean, College of Arts and Sciences
- Castellanos, Isabel, Ph.D.** (*Georgetown University*), Professor and Chairperson, Modern Languages
- Castells, Ricardo, Ph.D.** (*Duke University*), Associate Professor, Modern Languages
- Chan, Ivan, B.M.** (*The Curtis Institute of Music*), The Miami String Quartet-in-Residence, School of Music
- Chanley, Virginia, Ph.D.** (*University of Minnesota*), Assistant Professor, Political Science
- Chatfield, David, Ph.D.** (*University of Minnesota*), Assistant Professor, Chemistry
- Chen, Chun-Fan, Ph.D.** (*University of Michigan*), Associate Professor, Biological Sciences
- Chen, Ling, Ph.D.** (*American University*), Associate Professor, Statistics
- Chen, Shu-Ching, Ph.D.** (*Purdue University*), Assistant Professor, School of Computer Science
- Cheo, Z. Sherman, Ph.D.** (*University of Texas-Dallas*), Associate Professor, Statistics
- Chernela, Janet, Ph.D.** (*Columbia University*), Professor, Sociology/Anthropology
- Childers, Daniel, Ph.D.** (*Louisiana State University*), Associate Professor, Biological Sciences and Southeast Environmental Research Center
- Chisik, Richard, Ph.D.** (*Northwestern University*), Assistant Professor, Economics
- Chiu, Wan-Ling, Ph.D.** (*Michigan State University*), Assistant Research Scientist, Biological Sciences
- Chung, Bongkil, Ph.D.** (*Michigan State University*), Professor, Philosophy
- Church, Phillip, M.F.A.** (*University of California-Irvine*), Associate Professor, Theatre and Dance
- Cichon, Elaine, M.A.** (*University of Miami*), Instructor, Theatre and Dance-Speech Communication Program
- Ciliberto, Federico, Ph.D.** (*Northwestern University*), Assistant Professor, Economics
- Clarke, Alice, Ph.D.** (*University of Michigan*), Assistant Professor, Environmental Studies
- Clark, John, Ph.D.** (*University of Virginia*), Associate Professor, International Relations
- Clark, Leroy, Ph.D.** (*Kent State University*), Professor and Chairperson, Theatre and Dance
- Clem, Ralph, Ph.D.** (*Columbia University*), Professor, International Relations and Director, Center for Transnational and Comparative Studies
- Clement, Bradford, Ph.D.** (*Columbia University*), Professor, Earth Sciences
- Cohen, Daniel, Ph.D.** (*Brandëis University*), Associate Professor, History
- Collins, Laurel, Ph.D.** (*Yale University*), Assistant Professor, Earth Sciences and Biological Sciences
- Collins, Timothy, Ph.D.** (*Yale University*), Assistant Professor, Biological Sciences
- Condon, Keith, Ph.D.** (*University of Illinois-Chicago*), Lecturer, Biological Sciences
- Cook, N. David, Ph.D.** (*University of Texas-Austin*), Professor, History
- Copeland, Emily, Ph.D.** (*Fletcher School of Law and Diplomacy, Tufts University*), Assistant Professor, International Relations
- Cornejo, Abel, M.F.A.** (*Brooklyn College, City University of New York*), Instructor, Theatre and Dance
- Correll, Helen, Ph.D.** (*Duke University*), Research Scientist, Biological Sciences
- Couper, James, M.A.** (*Florida State University*), Professor, Visual Arts
- Cox, Ronald W., Ph.D.** (*University of Wisconsin-Madison*), Associate Professor, Political Science
- Craumer, Peter, Ph.D.** (*Columbia University*), Associate Professor, International Relations
- Crosby, James, Ph.D.** (*Yale University*), Professor Emeritus, Modern Languages
- Cuervo, Leon, Ph.D.** (*University of Maryland*), Professor, Biological Sciences
- Cuciurean, John, Ph.D.** (*State University of New York at Buffalo*), Assistant Professor, School of Music
- Cutler, Brian, Ph.D.** (*University of Wisconsin-Madison*), Professor, Psychology
- Damian, Carol Ph.D.** (*University of Miami*), Associate Professor and Chairperson, Visual Arts
- Daric, Yesim, Ph.D.** (*University of Missouri*), Associate Professor, Physics
- Daruwala, Maneck, Ph.D.** (*University of Rochester*), Associate Professor, English
- Davidovici, Robert**, Postgraduate Diploma in Violin (*The Juilliard School*), Professor, School of Music
- Debrix, Francois, Ph.D.** (*Purdue University*), Assistant Professor, International Relations
- de Alonso, Irma, Ph.D.** (*University of York, England*), Professor, Economics
- de la Cuesta, Leonel A., Ph.D.** (*The Johns Hopkins University*), Professor, Modern Languages
- del Valle, Eduardo, M.F.A.** (*Brooklyn College, City University of New York*), Professor, Visual Arts
- Delgado, Milagros, Ph.D.** (*University of Miami*), Lecturer, Chemistry
- Demos, Marian, Ph.D.** (*Harvard University*), Associate Professor, Humanities and Modern Languages
- Deng, Yi, Ph.D.** (*University of Pittsburgh*), Associate Professor, School of Computer Science
- Donnelly, Maureen, Ph.D.** (*University of Miami*), Associate Professor, Biological Sciences
- Dougherty, Keith, Ph.D.** (*University of Maryland-College Park*), Assistant Professor, Political Science
- Downey, Timothy, M.S.** (*State University of New York at Albany*), Instructor, School of Computer Science

- Downum, Kelsey, Ph.D.** (*University of British Columbia*), Professor, Biological Sciences and Associate Dean, College of Arts and Sciences
- Draghici, Tedi, Ph.D.**, (*Michigan State University*), Assistant Professor, Mathematics
- Draper, Grenville, Ph.D.** (*University of the West Indies*), Professor, Earth Sciences
- Draper, Paul, Ph.D.** (*University of California-Irvine*), Associate Professor, Philosophy and Religious Studies
- Dufresne, John, M.F.A.** (*University of Arkansas*), Professor, English
- Duhamel, Denise, M.F.A.** (*Sarah Lawrence College*), Assistant Professor, English
- Duncan, Richard, M.F.A.** (*Southern Illinois University*), Associate Professor, Visual Arts
- Dundas, Robert, M.F.A.** (*University of Iowa*), Assistant Professor, School of Music
- Dunn, Marvin, Ph.D.** (*University of Tennessee*), Associate Professor and Chairperson, Psychology
- Dunscomb, Richard, M.M.E.** (*Millikin University*), Professor, School of Music
- Dutta Gupta, Shamita, Ph.D.** (*Brown University*), Assistant Professor, Mathematics
- Edward, Julian, Ph.D.** (*Massachusetts Institute of Technology*), Associate Professor, Mathematics
- Ege, Raimund, Ph.D.** (*Oregon Graduate Center*), Associate Professor, School of Computer Science
- Elkins, Charles, Ph.D.** (*Southern Illinois University*), Professor, English
- Elkins, Mary Jane, Ph.D.** (*Southern Illinois University*), Associate Professor, English
- Elton, Hugh, Ph.D.** (*Oxford University*), Assistant Professor, History
- Endel, Peggy, Ph.D.** (*Cornell University*), Associate Professor, English
- Erber, Joan, Ph.D.** (*St. Louis University*), Professor, Psychology
- Escovar, Luis, Ph.D.** (*Pennsylvania State University*), Associate Professor, Psychology
- Evangelist, Michael, Ph.D.** (*Northwestern University*), Professor School of Computer Science
- Fanomezantsoa, Mhola, M.S.** (*State University of New York-Institute of Technology*), Instructor, School of Computer Science
- Fernandez, Damian J., Ph.D.** (*University of Miami*), Associate Professor and Chairperson, International Relations
- Fernandez, Nadine, Ph.D.** (*University of California-Berkeley*), Assistant Professor, Sociology/Anthropology
- Fiebig, Rudolf, Ph.D.** (*University of Munster*), Professor, Physics
- Finley, Gordon, Ph.D.** (*Harvard University*), Professor, Psychology
- Fisher, Jack B., Ph.D.** (*University of California-Davis*), Research Scientist, Biological Sciences
- Fisher, Ronald, Ph.D.** (*Ohio State University*), Professor, Psychology
- Fjellman, Stephen, Ph.D.** (*Stanford University*), Professor, Sociology/Anthropology and Associate Dean, Honors College
- Flexser, Arthur, Ph.D.** (*Stanford University*), Associate Professor, Psychology
- Fox, Domitila, M.S.** (*University of Miami*), Instructor, Mathematics
- Francisco-Ortega, Javier, Ph.D.** (*University of Birmingham, Great Britain*), Assistant Professor, Biological Sciences
- Frazier, Leslie, Ph.D.** (*Syracuse University*), Assistant Professor, Psychology
- Free, Mary, Ph.D.** (*University of Georgia*), Associate Professor and Associate Chairperson, English
- Friedman, Rebecca, M.A.** (*University of Michigan*), Assistant Professor, History
- Fuller, Karen, M.F.A.** (*Florida International University*), Instructor and Director of Performing Arts Production, School of Music
- Furton, Kenneth, Ph.D.** (*Wayne State University*), Associate Professor and Chairperson, Chemistry
- Fourqurean, James, Ph.D.** (*University of Virginia*), Associate Professor, Biological Sciences and Southeast Environmental Research Center
- Gamarra, Eduardo, Ph.D.** (*University of Pittsburgh*), Professor, Political Science and Director, Latin American and Caribbean Center
- Garcia, Orlando, D.M.A.** (*University of Miami*), Professor, School of Music
- Gardinali, Piero, Ph.D.** (*Texas A&M University*), Assistant Professor, Chemistry and Southeast Environmental Research Center
- Gebelein, Jennifer, Ph.D.** (*University of California-Santa Barbara*), Assistant Professor, International Relations
- Gekic, Kemal, M.A.** (*University of Novi Sad, Yugoslavia*), Professor/Artist-in-Residence, School of Music
- George, Robert, Ph.D.** (*University of Washington*), Lecturer, Biological Sciences
- George, Jr., Roby, Ph.D.** (*University of Cincinnati*), Assistant Professor, School of Music
- Gerstman, Bernard, Ph.D.** (*Princeton University*), Professor, Physics
- Gewirtz, Jacob, Ph.D.** (*State University of Iowa*), Professor, Psychology
- Ghai, Gauri, Ph.D.** (*Iowa State University*), Associate Professor, Statistics
- Girard, Chris, Ph.D.** (*University of Wisconsin-Madison*), Associate Professor, Sociology/Anthropology
- Gladwin, Hugh, Ph.D.** (*Stanford University*), Associate Professor, Sociology/Anthropology
- Goldberg, Walter, Ph.D.** (*University of Miami*), Professor, Biological Sciences
- Gomez, Maria Asuncion, Ph.D.** (*Rutgers University*), Assistant Professor, Modern Languages
- Gomez, Mirta, M.F.A.** (*Brooklyn College, City University of New York*), Professor, Visual Arts
- Gomez, Ramon, M.S.** (*University of Miami*), Instructor, Statistics
- Gonzalez-Reigosa, Fernando, Ph.D.** (*Florida State University*), Associate Professor, Psychology
- Gorman, Susan, Ph.D.** (*University of Maryland*), Instructor, Mathematics
- Gottlieb, Joel, Ph.D.** (*University of California-Riverside*), Associate Professor, Political Science
- Graves, A. Palmer, Ph.D.** (*University of Oklahoma*), Lecturer, Chemistry
- Grenier, Guillermo, Ph.D.** (*University of New Mexico*), Associate Professor, Sociology and Director, Center for Labor Research and Studies
- Griffith, Ivelaw L., Ph.D.** (*City University of New York*), Professor, Political Science and Dean, Honors College
- Gross, Michael, Ph.D.** (*Pennsylvania State University*), Associate Professor, Earth Sciences
- Gudorf, Christine, Ph.D.** (*Columbia University*), Professor, Religious Studies
- Guernsey, Daniel, Ph.D.** (*University of Wisconsin-Madison*), Assistant Professor, Visual Arts and Humanities

- Gulati, Sneh, Ph.D.** (*University of South Carolina*), Associate Professor, Statistics
- Gummerson, Alan, Ph.D.** (*University of Wisconsin-Madison*), Instructor, Economics
- Hadjilambros, Constantine, Ph.D.** (*University of Delaware*), Associate Professor, Environmental Studies
- Hall, James, Ph.D.** (*University of Utah*), Professor, English
- Hardy, Kenneth, Ph.D.** (*Tulane University*), Professor, Physics
- Hargitai, Peter, M.F.A.** (*University of Massachusetts*), Lecturer, English
- Harrison, Kimberly, Ph.D.** (*Louisiana State University*), Assistant Professor, English
- Hart, Mitchell, Ph.D.** (*University of California-Los Angeles*), Associate Professor, History
- Harvey, Bruce, Ph.D.** (*Stanford University*), Associate Professor, English
- Hauptli, Bruce, Ph.D.** (*Washington University*), Professor, Philosophy
- He, Xudong, Ph.D.**, (*Virginia Polytechnic University*), Assistant Professor, School of Computer Science
- Heine, Steven, Ph.D.** (*Temple University*), Professor, Religious Studies
- Heinen, Joel, Ph.D.** (*University of Michigan*), Associate Professor, Environmental Studies
- Henley, Kenneth, Ph.D.** (*University of Virginia*), Professor, Philosophy
- Herrera, Rene, Ph.D.** (*Fordham University*), Associate Professor, Biological Sciences
- Herriott, Arthur, Ph.D.** (*University of Florida*), Professor, Chemistry and Dean, College of Arts and Sciences
- Hickey-Vargas, Rosemary, Ph.D.** (*Massachusetts Institute of Technology*) Professor, and Chairperson, Earth Sciences
- Hill, Kevin, Ph.D.** (*University of Florida*), Associate Professor, Political Science
- Hoder-Salmon, Marilyn, Ph.D.** (*University of New Mexico*), Associate Professor, English
- Hoffman, Gary, Ph.D.** (*Harvard University*), Associate Professor, Chemistry
- Hollander, Gail, Ph.D.** (*University of Iowa*), Assistant Professor, International Relations
- Hopkins, Tometro, Ph.D.** (*Indiana University*), Associate Professor, English
- Houghton, William, M.S.** (*University of Georgia*), Research Scientist, Biological Sciences
- Howell, Ina Parks, Ph.D.** (*University of South Florida*), Lecturer, Statistics
- Huchingson, James, Ph.D.** (*Emory University*), Associate Professor, Religious Studies
- Hudson, Steven, Ph.D.** (*University of Chicago*), Associate Professor, Mathematics
- Irvine, Kip, M.S.** (*University of Miami*), Instructor, School of Computer Science
- Jacobs, Ellen, M.S.** (*Illinois Institute of Technology*), Professor, Visual Arts
- Jaffe, Rudolf, Ph.D.** (*Indiana University*), Associate Professor, Chemistry and Associate Director, Southeast Environmental Research Center
- Jayachandran, Krishnaswamy, Ph.D.** (*Kansas State University*), Assistant Professor, Environmental Studies and Southeast Environmental Research Program
- Jensen, John, Ph.D.** (*Harvard University*), Professor, Modern Languages
- Jochem, Frank, Ph.D.** (*University of Kiel, Germany*), Assistant Professor, Biological Sciences
- Joens, Jeffrey, Ph.D.** (*Indiana University*), Professor, Chemistry
- Johnson, Kenneth, Ph.D.** (*Brown University*), Associate Professor, English and Assistant Vice President, Academic Affairs
- Johnson, Paulette, Ph.D.** (*Kansas State University*), Lecturer, Statistics and Director of Statistical Consulting
- Johnson, Sherry, Ph.D.** (*University of Florida*), Associate Professor, History
- Johnson-Cousin, Danielle, Ph.D.** (*University of Illinois*), Associate Professor, Modern Languages
- Jones, Ronald, Ph.D.** (*Oregon State University*), Professor, Biological Sciences and Director, Southeast Environmental Research Center
- Jorge, Antonio, Ph.D.** (*Villanova Universidad*), Professor, Economics, International Relations, Political Science and Sociology/Anthropology
- Juan-Navarro, Santiago, Ph.D.** (*Columbia University*), Assistant Professor, Modern Languages
- Jupille, Joseph, Ph.D.** (*University of Washington*), Assistant Professor, Political Science
- Kafkoulis, George, Ph.D.** (*California Institute of Technology*), Associate Professor, Mathematics
- Kahan, Alan, Ph.D.** (*University of Chicago*), Associate Professor, History
- Kaleem, Faisal, M.S.** (*Florida International University*), Instructor, School of Computer Science
- Kaminsky, Howard, Ph.D.** (*University of Chicago*), Professor Emeritus, History
- Karayalcin, Ali Cem, Ph.D.** (*Columbia University*), Associate Professor, Economics
- Karsh, Ellen, M.A.** (*Florida International University*), Instructor, Theatre and Dance-Speech Communication Program
- Kates, Jeanne, M.A.** (*Florida International University*), Instructor, Political Science
- Katz, Nathan, Ph.D.** (*Temple University*), Professor and Chairperson, Religious Studies
- Kaufman, Fredrick, M.M.** (*Manhattan School of Music*), Professor and Director, School of Music
- Kavallieratos, Konstantinos, Ph.D.** (*Yale University*), Assistant Professor, Chemistry
- Keller, Leonard, Ph.D.** (*Yale University*), Professor, Chemistry
- Kibria, Golam, Ph.D.** (*University of Western Ontario*), Assistant Professor, Statistics
- Kincaid, A. Douglas, Ph.D.** (*The Johns Hopkins University*), Associate Professor, Sociology/Anthropology and Vice Provost, International Studies
- King, Clive, A.T.C., Ph.D.** (*University of London*), Professor, Visual Arts
- Klein, Franz, Ph.D.** (*University of Bonn, Germany*), Assistant Professor, Physics
- Knapp, Jeffrey, M.A.** (*University of Miami*), Instructor, English
- Koptur, Suzanne, Ph.D.** (*University of California-Berkeley*), Professor, Biological Sciences
- Kos, Lidia, Ph.D.** (*University of California-Berkeley*), Assistant Professor, Biological Sciences
- Kouranbaeva, Shinar, Ph.D.** (*University of California-Santa Cruz*), Assistant Professor, Mathematics
- Kovacs, George, Ph.D.** (*University of Louvain*), Professor, Philosophy
- Kovera, Margaret, Ph.D.** (*University of Minnesota*), Associate Professor, Psychology
- Kowert, Paul, Ph.D.** (*Cornell University*), Associate Professor, International Relations

- Kramer, Laird, Ph.D.** (*Duke University*), Assistant Professor, Physics
- Kraynek, William, Ph.D.** (*Carnegie-Mellon University*), Associate Professor and Associate Director, School of Computer Science
- Kretz, Kathleen, M.F.A.** (*University of Georgia*), Assistant Professor, Visual Arts
- Kriegel, Lara, Ph.D.** (*The Johns Hopkins University*), Assistant Professor, History
- Kuhn, David N., Ph.D.** (*University of California-Davis*), Associate Professor, Biological Sciences
- Kurtines, William, Ph.D.** (*The Johns Hopkins University*), Professor, Psychology
- Landrum, John, Ph.D.** (*University of Southern California*), Professor, Chemistry
- Langer, Lilly, Ph.D.** (*University of Miami*), Associate Professor, Sociology/Anthropology
- Larson, Erik, Ph.D.** (*New York University*), Assistant Professor, History
- Lavender, Abraham, Ph.D.** (*University of Maryland*), Professor, Sociology/Anthropology
- Leatherman, Stephen P., Ph.D.** (*University of Virginia*), Professor, Environmental Studies and Director, International Hurricane Center
- Leckband, Mark, Ph.D.** (*Purdue University*) Associate Professor, Mathematics
- Lee, David, Ph.D.** (*Rutgers University*), Professor, Biological Sciences
- Lenke, Robert J., Ph.D.** (*University of Wisconsin-Madison*), Assistant Professor, Economics
- Leness, Thomas, Ph.D.** (*Columbia University*), Assistant Professor, Mathematics
- Levine, Barry, Ph.D.** (*New School for Social Research*), Professor, Sociology/Anthropology
- Levitt, Mary, Ph.D.** (*Syracuse University*), Professor, Psychology
- Li, Bao Qin, Ph.D.** (*University of Maryland*), Associate Professor, Mathematics
- Lichtenstein, Alex, Ph.D.** (*University of Pennsylvania*), Associate Professor, History
- Lickliter, Robert, Ph.D.** (*University of California-Davis*), Professor, Psychology
- Lifshitz, Felice, Ph.D.** (*Columbia University*), Associate Professor, History
- Lineback, Janet, Ph.D.** (*University of Miami*), Professor, Chemistry
- Liosatos, Panagis, Ph.D.** (*University of Pennsylvania*), Professor and Chairperson, Economics
- Lipartito, Kenneth, Ph.D.** (*The Johns Hopkins University*), Professor, and Chairperson, History
- Lipner, Kenneth, Ph.D.** (*Rutgers University*), Associate Professor, Economics
- Longoria, Jose, Ph.D.** (*University of Texas-Dallas*), Professor, Earth Sciences
- Lopez, Alfred, Ph.D.** (*University of Iowa*), Assistant Professor, English
- Lopez de la Vega, Ramon, Ph.D.** (*University of Miami*), Associate Professor, Chemistry
- Lowery, Shearou, Ph.D.** (*Washington State University*), Associate Professor, Sociology/Anthropology
- Lund, Gary, B.F.A.** (*Florida International University*), Instructor, Theatre and Dance
- MacDonald, Charles, Ph.D.** (*University of Virginia*), Professor, International Relations
- MacFarlane, Andrew W., Ph.D.** (*Harvard University*), Associate Professor, Earth Sciences
- Machonis, Peter A., Ph.D.** (*Pennsylvania State University*), Associate Professor, Modern Languages
- Maguire, William, M.S.** (*Illinois Institute of Technology*), Professor, Visual Arts
- Mahler, Sarah, Ph.D.** (*Columbia University*), Associate Professor, Sociology/Anthropology
- Maingot, Anthony, Ph.D.** (*University of Florida*), Professor, Sociology/Anthropology
- Makemson, John, Ph.D.** (*Washington State University*), Professor and Chairperson, Biological Sciences
- Marcus, Phillip, Ph.D.** (*Harvard University*), Professor, English
- Markowitz, Peter, Ph.D.** (*College of William and Mary*), Assistant Professor, Physics
- Marks, Michelle, Ph.D.** (*George Mason University*), Assistant Professor, Psychology
- Martin, Felix, Ph.D.** (*Columbia University*), Assistant Professor, International Relations
- Martin, Kathleen, Ph.D.** (*Bryn Mawr College*), Associate Professor, Sociology/Anthropology
- Martinez, Juan A., Ph.D.** (*Florida State University*), Associate Professor, Visual Arts
- Mathee, Kalai, Ph.D.** (*University of Tennessee-Memphis*), Assistant Professor, Biological Sciences
- Mau, James A., Ph.D.** (*University of California-Los Angeles*), Professor, Sociology/Anthropology
- Maurrasse, Florentin, Ph.D.** (*Columbia University*), Professor, Earth Sciences
- Maxwell, Oren, Ph.D.** (*State University of New York at Stony Brook*), Professor, Physics
- McClain, Michael, Ph.D.** (*University of Washington*), Assistant Professor, Environmental Studies
- McCormack, Kathleen, Ph.D.** (*University of Miami*), Associate Professor, English
- McCoy, Diana, M.A.** (*Case Western Reserve University*), Instructor, Mathematics
- McElfresh, Clair, D.M.A.** (*Case Western Reserve University*), Professor Emeritus, School of Music
- McGrath, Campbell, M.F.A.** (*Columbia University*), Associate Professor, English
- McIntire, Carmela Pinto, Ph.D.** (*Michigan State University*), Associate Professor, English
- McKinnie, Kathryn, Ph.D.** (*University of Delaware*), Assistant Professor, English
- McNeil, Charles, M.M.** (*University of Miami*), Associate Professor, School of Music
- Melchior, Mary Beth, Ph.D.** (*University of Maryland-College Park*), Assistant Professor, Political Science
- Mendoza, Ramon, Ph.D.** (*Freie Universitaet, Berlin*), Professor, Modern Languages and Humanities
- Meng Robiason, Cathy, M.M.** (*San Francisco Conservatory of Music*), Miami String Quartet-in-Residence, School of Music
- Mesbahi, Mohiaddin, Ph.D.** (*University of Miami*), Associate Professor, International Relations
- Meziani, Abdelhamid, Ph.D.** (*Rutgers University*), Professor, Mathematics
- Mi, Jie, Ph.D.** (*University of Pittsburgh*), Associate Professor and Chairperson, Statistics
- Milani, Masoud, Ph.D.** (*University of Central Florida*), Associate Professor, School of Computer Science
- Milbauer, Asher, Ph.D.** (*University of Washington-Seattle*), Associate Professor, English
- Mintz, Stephan, Ph.D.** (*The Johns Hopkins University*), Professor and Chairperson, Physics
- Mitra, Devashish, Ph.D.** (*Columbia University*), Assistant Professor, Economics

- Molash, Douglas Dean, M.F.A.** (*Mankato State University*), Assistant Professor, Theatre and Dance
- Montgomery, Marilyn, Ph.D.** (*Texas Tech University*), Assistant Professor, Psychology
- Morales-Martinez, Zaida C., M.S.** (*Pennsylvania State University*), Instructor, Chemistry
- Morgan, Dahlia, Diplomate of College Teaching** (*University of Florida*), Professor, Visual Arts and Director of The Art Museum
- Moran, Gary, Ph.D.** (*Katholieke University, Nijmegen, Netherlands*), Professor, Psychology
- Moreno, Dario, Ph.D.** (*University of Southern California*), Associate Professor, Political Science
- Morrow, Betty, Ph.D.** (*University of Miami*), Professor, Sociology/Anthropology
- Mullen, Paul, Ph.D.** (*University of Pittsburg*), Assistant Professor, Political Science
- Nadel, Richard, M.S.** (*Northwestern University*), Instructor, Mathematics
- Navlakha, Jainendra, Ph.D.** (*Case Western Reserve University*), Professor and Director, School of Computer Science
- Neal, Leslie, M.A.** (*Florida State University*), Associate Professor, Theatre and Dance
- Nelson, Brian, Ph.D.** (*University of California-Riverside*), Associate Professor, Political Science
- Neumann, Roderick P., Ph.D.** (*University of California-Berkeley*), Associate Professor, International Relations
- Neus, Jordan, Ph.D.** (*State University of New York at Stony Brook*), Assistant Professor, Statistics
- Norstog, Knut, Ph.D.** (*University of Michigan*), Research Scientist, Biological Sciences
- Northup, Lesley, Ph.D.** (*Catholic University*), Associate Professor, Religious Studies
- Oberbauer, Steven, Ph.D.** (*Duke University*), Professor, Biological Sciences
- Ogundiran, Akin, Ph.D.** (*Boston University*), Assistant Professor, History
- Okubo, Case, Ph.D.** (*University of Guelph*), Associate Professor, Biological Sciences
- Olson, Richard, Ph.D.** (*University of Oregon*), Professor, Political Science
- Onuf, Nicholas, Ph.D.** (*The Johns Hopkins University*), Professor, International Relations
- Orta, Michael, M.A.** (*University of Miami*), Assistant Professor, School of Music
- O'Shea, Kevin E., Ph.D.** (*University of California-Los Angeles*), Associate Professor, Chemistry
- Parker, Janet, Ph.D.** (*University of California-Berkeley*), Professor, Psychology and Director of Liberal Studies
- Parker, John, Ph.D.** (*University of California-Berkeley*), Professor, Environmental Studies and Chemistry
- Passos, Fernando, M.F.A.,** (*Tisch School of the Arts, New York University*), Instructor, Theatre and Dance
- Pasztor, Ana, DRN** (*Darmstadt University, West Germany*), Professor, School of Computer Science
- Patrouch, Joseph F., Ph.D.** (*University of California-Berkeley*), Associate Professor, History
- Patterson, Chauncey, B.M.** (*The Curtis Institute of Music*), Miami String Quartet-in-Residence, School of Music
- Peacock, Walter G., Ph.D.** (*University of Georgia*), Professor and Chairperson, Sociology/Anthropology
- Pelin, Alexandru, Ph.D.** (*University of Pennsylvania*), Associate Professor, School of Computer Science
- Perez, Lisandro, Ph.D.** (*University of Florida*), Associate Professor, Sociology/Anthropology, and Director of Cuban Research Institute
- Pestaina, Norman, M.S.** (*Pennsylvania State University*), Instructor, School of Computer Science
- Peterson, Brian, Ph.D.** (*University of Wisconsin-Madison*), Associate Professor, History
- Peterson, Joyce, Ph.D.** (*University of Wisconsin-Madison*), Associate Professor, History and Associate Dean, College of Arts and Sciences
- Phillipi, Thomas, Ph.D.** (*University of Utah*), Assistant Professor, Biological Sciences
- Piantini, Carlos, B.M.** (*New York College of Music*), Professor, School of Music
- Pitzer, Thomas, M.S.** (*Auburn University*), Instructor, Biological Sciences
- Pliske, Thomas, Ph.D.** (*Cornell University*), Lecturer, Biological Sciences and Environmental Studies
- Power, Timothy, Ph.D.** (*University of Norte Dame*), Assistant Professor, Political Science
- Prabhakaran, Nagarajan, Ph.D.** (*University of Queensland*), Associate Professor, School of Computer Science
- Price, Patricia, Ph.D.** (*University of Washington*), Assistant Professor, International Relations
- Prugl, Elizabeth, Ph.D.** (*The American University*), Associate Professor, International Relations
- Pyron, Darden, Ph.D.** (*University of Virginia*), Professor, History
- Quirke, Marti, Ph.D.** (*University of Liverpool*), Professor, Chemistry
- Rae, Nicol, D.Phil.** (*Oxford University*), Professor and Chairperson, Political Science
- Rabier, Jaen, Ph.D.** (*University of Paris X-Nanterre*), Associate Professor, Sociology/Anthropology
- Ramsamujh, Taje, Ph.D.** (*California Institute of Technology*), Associate Professor, Mathematics
- Rand, Gary, Ph.D.** (*Texas A & M University*), Associate Professor, Environmental Studies and Southeast Environmental Research Center
- Ratner, Robert, M.A.** (*University of Miami*), Instructor, English
- Raue, Brian, Ph.D.** (*Indiana University*), Assistant Professor, Physics
- Rein, Kathleen, Ph.D.** (*University of Miami*), Assistant Professor, Chemistry
- Reinhold, Jorg, Ph.D.,** (*Technische Universitaet Munchen*), Assistant Professor, Physics
- Reisert, Laura, M.S.** (*University of Florida*), Instructor, Statistics
- Rey, Terry, Ph.D.** (*Temple University*), Assistant Professor, Religious Studies
- Richards, Jennifer, Ph.D.** (*University of California-Berkeley*), Professor, Biological Sciences
- Richardson, Laurie, Ph.D.** (*University of Oregon*), Associate Professor, Biological Sciences
- Rishe, Naphtali, Ph.D.** (*Tel Aviv University, Israel*), Professor, School of Computer Science
- Ritter, David, Ph.D.** (*Louisiana State University*), Associate Professor, Mathematics
- Robinson, Keith, B.M.** (*The Curtis Institute of Music*), Miami String Quartet-in-Residence, School of Music
- Robinson, Wayne, M.F.A.** (*National Theatre Conservatory*), Associate Professor, Theatre and Dance
- Roca, Ana, D.A.** (*University of Miami*), Professor, Modern Languages

- Roch, Marie, M.S.** (*University of Illinois-Urbana*), Instructor, School of Computer Science
- Rochelson, Meri-Jane, Ph.D.** (*University of Chicago*), Associate Professor, English
- Rock, Howard, Ph.D.** (*New York University*), Professor, History
- Rogerson, Kenneth, Ph.D.** (*University of California-San Diego*), Professor, Philosophy and Director of Humanities
- Rohm, Joseph, Ph.D.** (*Florida State University*), Associate Professor, School of Music
- Roller, Barbara, Ph.D.** (*University of Pennsylvania*), Lecturer, Biological Sciences
- Rose, Suzanna, Ph.D.** (*University of Pittsburgh*), Professor, Psychology and Director of Women's Studies
- Rosenberg, Mark, Ph.D.** (*University of Pittsburgh*), Professor, Political Science, and University Provost
- Rosenthal, Michael, M.S.** (*University of Miami*), Instructor, Mathematics
- Rotton, James, Ph.D.** (*Purdue University*), Associate Professor, Psychology
- Roy, Dev, Ph.D.** (*University of Rochester*), Associate Professor, Mathematics
- Roy, Santanu, Ph.D.** (*Cornell University*), Associate Professor, Economics
- Rubenberg, Cheryl, Ph.D.** (*University of Miami*), Associate Professor, Political Science
- Rubin, Richard, Ph.D.** (*Washington University*), Associate Professor, Mathematics
- Rudominer, Mitch, Ph.D.** (*University of California-Los Angeles*), Assistant Professor, Mathematics
- Rukimbira, Philippe, Ph.D.** (*Pennsylvania State University*), Associate Professor, Mathematics
- Salazar-Carrillo, Jorge, Ph.D.** (*University of California-Berkeley*), Professor, Economics and Director, Center of Economic Research
- Salakar, Rebecca, Ph.D.** (*Syracuse University*), Associate Professor, Political Science
- Salvador, Miguel, D.M.A.** (*University of Miami*), Associate Professor, School of Music
- Sanchez, Juan, Ph.D.** (*University of South Florida*), Associate Professor, Psychology
- Sanchez, Reinaldo, Ph.D.** (*Washington University*), Professor, Modern Languages
- Sanders, Roger, Ph.D.** (*University of Texas-Austin*), Research Scientist, Biological Sciences
- Sandoval, Arturo, Superior Level** (*National School of Art, Havana, Cuba*), Professor, School of Music
- Sargsian, Misak, Ph.D.** (*Yerevan Physics Institute*), Assistant Professor, Physics
- Saxena, Surenda, Ph.D.** (*University of Uppsala, Sweden*), Professor, Earth Sciences
- Schriner, Brian, M.A.** (*University of Miami*), Instructor, Theatre and Dance-Speech Communication Program
- Schwartz, Bennett, Ph.D.** (*Dartmouth College*), Associate Professor, Psychology
- Schwartz, Richard, Ph.D.** (*University of Chicago*), Professor, English
- Seidel, Andrea, D.A.** (*New York University*), Associate Professor, Theatre and Dance
- Sen, Gautam, Ph.D.** (*University of Texas-Dallas*), Professor, Earth Sciences
- Shapiro, Samuel S., Ph.D.** (*Rutgers University*), Professor, Statistics
- Shaw, Gregory, M.S.** (*Barry University*), Instructor, School of Computer Science
- Sheldon, John, Ph.D.** (*Texas A&M University*), Professor, Physics
- Sheriff, Robin, Ph.D.** (*City University of New York*), Assistant Professor, Sociology/Anthropology
- Shershin, Anthony, Ph.D.** (*University of Florida*), Associate Professor, Mathematics
- Shore, Minna, Ph.D.** (*Leningrad Technical Institute*), Instructor, Mathematics
- Silverman, Wendy, Ph.D.** (*Case Western Reserve University*), Professor, Psychology and Director, Child and Family Psychosocial Research Center
- Silverstein, Ronn, M.A.** (*Sir George Williams University, Montreal*), Instructor, English
- Simpson, Caroline, Ph.D.** (*University of Florida*), Associate Professor, Physics
- Skow, Marilyn, M.Ph.** (*Columbia University*), Associate Professor, Theatre and Dance
- Slifker, James, Ph.D.** (*University of Notre Dame*), Associate Professor, Mathematics
- Smith Geoffrey, Ph.D.**, (*Cornell University*), Assistant Professor, School of Computer Science
- Smith, Joslyn, M.S.** (*University of New Brunswick*), Instructor, School of Computer Science
- Smith, Katherine, Ph.D.** (*University of Connecticut*), Assistant Professor, English
- Smith, Sylvia, Ph.D.** (*University of Miami*), Professor, Biological Sciences
- Sprechman, Ellen, Ph.D.** (*University of Miami*), Lecturer, English
- Stack, John, Jr., Ph.D.** (*University of Denver*), Professor, Political Science and Director, Institute for Public Policy and Citizenship Studies
- Standiford, Lester, Ph.D.** (*University of Utah*), Professor, English and Director, Creative Writing Program
- Stepick, Alex, Ph.D.** (*University of California-Irvine*), Professor, Sociology/Anthropology and Director, Ethnicity and Immigration Institute
- Stiehm, Judith, Ph.D.** (*Columbia University*), Professor, Political Science
- Stier, Oren, Ph.D.** (*University of California-Santa Barbara*), Assistant Professor, Religious Studies
- Stoddard, Philip D., Ph.D.** (*University of Washington*), Associate Professor, Biological Sciences
- Strong-Leek, Linda, Ph.D.** (*Michigan State University*), Assistant Professor, English
- Sugg, Richard, Ph.D.** (*University of Florida*), Professor, English
- Sun, Wei, Ph.D.** (*University of Illinois-Chicago Circle*), Associate Professor, School of Computer Science
- Sutton, James M., Ph.D.** (*Yale University*), Assistant Professor, English
- Sweet, James, Ph.D.** (*City University of New York*), Assistant Professor, History
- Syropoulos, Constantinos, Ph.D.** (*Yale University*), Associate Professor, Economics
- Szuchman, Mark, Ph.D.** (*University of Texas-Austin*), Professor, History and Associate Dean, College of Arts and Sciences
- Tao, Nongjian, Ph.D.** (*Arizona State University*), Associate Professor, Physics
- Tachim Medjo, Theodore, Ph.D.** (*University of Paris*), Assistant Professor, Mathematics
- Tardanico, Richard, Ph.D.** (*The Johns Hopkins University*), Associate Professor, Sociology/Anthropology
- Taylor, Clarence, Ph.D.** (*Syracuse University*), Professor, History
- Taylor, Graham, Ph.D.** (*University of California-Berkeley*), Assistant Professor, Mathematics

- Theisen, Lee, Ph.D.** (*University of Arizona*), Assistant Dean, College of Arts and Sciences
- Thomakos, Dimitrios, Ph. D.**, (*Columbia University*), Assistant Professor, Economics
- Timlick, Lesley-Ann, M.F.A.** (*University of California-Davis*), Associate Professor, Theatre and Dance
- Todd, Therald, Ph.D.** (*University of Oregon*), Associate Professor, Theatre and Dance
- Torres, Manuel, Ph.D.** (*University of New Mexico*), Professor, Visual Arts
- Torres-Pou, Juan, Ph.D.** (*Rutgers University*), Assistant Professor, Modern Languages
- Tracey, Martin, Ph.D.** (*Brown University*), Professor, Biological Sciences
- Trexler, Joel C., Ph.D.** (*Florida State University*), Associate Professor, Biological Sciences
- Tubman, Jonathan, Ph.D.** (*Pennsylvania State University*), Associate Professor, Psychology
- Uribe, Victor, Ph.D.** (*University of Pittsburgh*), Assistant Professor, History
- Vagramian-Nishanian, Violet, Ph.D.** (*University of Miami*), Professor, School of Music
- Van Hamme, Walter, Ph.D.** (*University of Ghent, Belgium*), Professor, Physics
- Vickers, William, Ph.D.** (*University of Florida*), Professor, Sociology/Anthropology
- Villamor, Enrique, Ph.D.** (*Washington University*), Professor and Chairperson, Mathematics
- Viswesvaran, Chockalingam, Ph.D.** (*University of Iowa*), Associate Professor, Psychology
- Wagner, Michael J., Ph.D.** (*Florida State University*), Professor, Music Education, School of Music
- Wakefield, Daniel, B.A.** (*Columbia College*), Lecturer and Writer-in-Residence, English
- Walker, Charlyne, Ph.D.** (*Barry University*), Instructor, School of Computer Science and Director of Educational Technology, Dean's Office
- Walker III, William, Ph.D.** (*University of California-Santa Barbara*), Professor, History
- Wang, Tao, Ph.D.** (*The Johns Hopkins University*), Assistant Professor, Economics
- Wang, Xuewen, Ph.D.** (*Iowa State University*), Associate Professor, Physics
- Warren, Christopher, D.A.** (*Lehigh University*), Associate Professor, Political Science
- Warren, Paul, Ph.D.** (*University of Wisconsin-Madison*), Associate Professor and Chairperson, Philosophy
- Watson, Donald, Ph.D.** (*University of Virginia*), Professor and Chairperson, English
- Watson-Espener, Maida, Ph.D.** (*University of Florida*), Professor, Modern Languages
- Watts, Barbara, Ph.D.** (*University of Virginia*), Associate Professor, Visual Arts
- Waugh, Butler, Ph.D.** (*Indiana University*), Professor, English
- Webb, James, Ph.D.** (*University of Florida*), Associate Professor, Physics
- Weeks, Ophelia, Ph.D.** (*Howard University*), Associate Professor, Biological Sciences
- Weir, Donna, Ph.D.** (*University of California-Berkeley*), Assistant Professor, English
- Weiss, Mark, Ph.D.** (*Princeton*), Professor, School of Computer Science
- Weitz, Barbara, M.S.** (*Florida International University*), Instructor, English
- Welch, Marcelle, Ph.D.** (*University of Michigan*), Professor, Modern Languages and Associate Director of Liberal Studies
- West, Lois, Ph.D.** (*University of California-Berkeley*), Associate Professor, Sociology/Anthropology
- Whitman, Dean, Ph.D.** (*Cornell University*), Associate Professor, Earth Sciences
- Wilkins, Mira, Ph.D.** (*University of Cambridge*), Professor, Economics
- Willumsen, Maria, Ph.D.** (*Cornell University*), Associate Professor, Economics
- Winkle, Stephen, Ph.D.** (*University of California-Berkeley*), Associate Professor, Chemistry
- Wnuk, Stanislaw, Ph.D.** (*Adam Michiewicz University, Poland*), Associate Professor, Chemistry
- Wolfe, Gregory Baker, Ph.D.** (*The Fletcher School of Law and Diplomacy*), Professor, International Relations
- Wood, Kirsten, Ph.D.** (*University of Pennsylvania*), Assistant Professor, History
- Yavas, Feryal, Ph.D.** (*University of Kansas*), Lecturer, English
- Yavas, Mehmet, Ph.D.** (*University of Kansas*), Professor, English and Director, Linguistics
- Young, Theodore, Ph.D.** (*Harvard University*), Associate Professor, Modern Languages
- Yudin, Florence, Ph.D.** (*University of Illinois*), Professor, Modern Languages
- Zahedi-Jasbi, Hassan, Ph.D.** (*University of California- Riverside*), Associate Professor, Statistics
- Zalnikar, Jyoti N., Ph.D.** (*University of California-Santa Barbara*), Associate Professor, Statistics
- Zhang, Jiandi, Ph.D.** (*Syracuse University*), Assistant Professor, Physics
- Zhu, Yifu, Ph.D.** (*University of Virginia*), Associate Professor, Physics
- Zweibel, John, Ph.D.** (*Columbia University*), Associate Professor, Mathematics

College of Business Administration

College of Business Administration

Mission Statement

The College of Business Administration exists to create enduring educational value for our students, for our alumni, and for the business, professional, and academic communities we serve.

For our students—whom we prepare to succeed in a rapidly changing, technology-driven global business environment;

For our alumni—to whom we provide opportunities for continuing professional development and a legacy that appreciates as our excellence grows;

For the business and professional communities—to whom we offer knowledgeable graduates, educational programs, research, and collaborative projects;

For the academic community—to whom we bring new knowledge through high-quality research and the development of future scholars.

Our vision is to create a College of Business Administration that is distinguished among urban public business schools as a center for global business education, technology, and research. Our most noteworthy teaching and research expertise lies in the business arenas linking South Florida, Latin America, and the world economy.

Our College offers undergraduate, graduate, professional education, customized training, and several certification programs to traditional and nontraditional students and to enterprises around the world. While continuing to meet the needs of students in the South Florida community, we are intensifying our educational service delivery to international students and enterprises, especially those in Latin America.

In all of our programs, we strive to instill in students a profound understanding of the changing nature of international business in an integrated and digital global economy. We ensure they are well versed in the impact information technology is having on how enterprises are organized and managed and on how products and services are created and marketed. We provide them with a solid grasp of business processes, the ability to think critically and to solve problems ethically, and the sense to conduct themselves with integrity and within the context of social and

environmental responsibility. We foster their commitment to life-long learning in a dynamic, complex, and competitive world.

Our faculty engage in basic and applied research and in instructional development to contribute not only to the general knowledge base in the field of business but also to the ways in which this knowledge is created and shared. Our College boasts a state-of-the-art information technology infrastructure that enables us to provide leading edge instruction and research, including online course delivery. At the same time, our IT investment supports our ongoing curricular innovation in related fields like enterprise-wide computing and logistics.

Organization

The College is organized into the School of Accounting and the Departments of Decision Sciences and Information Systems, Finance, Management and International Business, and Marketing.

The College also houses several centers of excellence dedicated to teaching, research, and service. These include the Jerome Bain Real Estate Institute, the Center for Banking and Financial Institutions, the Ryder Center for Logistics, the Knight Ridder Center for Excellence in Management, the Center for Management Development, the Center for Management in the Americas and the Center for International Business Education and Research.

Degree Programs

The College of Business Administration (CBA) offers academic programs leading to the undergraduate degrees of Bachelor of Business Administration (B.B.A.) and Bachelor of Accounting (B. Acc.) and to the graduate degrees of Master of Accounting (M.Acc.), Master of International Business (M.I.B.), Master of Business Administration (M.B.A.), Master of Science in Finance (M.S.F.), Master of Science in Management with a track in Information Systems (M.S.M.I.S.), Master of Science in Taxation (M.S.T.), and Doctor of Philosophy in Business Administration (Ph.D.).

Master's Degree Programs Admission Requirements

To be eligible for admission to a Master's degree program in the College of Business Administration, students must:

1. Meet the general University requirements for admission to a graduate degree program;

2. Hold a Bachelor's degree from an accredited college or university;*

3. Show high promise of success in graduate studies as determined by the faculty based upon a combination of the Graduate Management Admission Test (GMAT) score or the Graduate Record Exam (GRE) score and the upper-division grade point average (GPA);*

4. If applicant is an international student whose native language is not English, he/she must have a minimum score of 550 on the paper-based TOEFL, 213 on the computer-based TOEFL, or an equivalent score on a comparable examination. [Students should study the "General Admission" requirements for foreign students in the "Admissions" section of this catalog];

5. Be in good standing with all previously-attended colleges and universities.

*Requirements may be waived in exceptional cases for executive, value-added programs: EMBA, Global (e)MBA, etc.

Application Procedures

To apply for admission to graduate study in the College of Business Administration, prospective students must:

1. Submit a Graduate Application for Admission to the University's Admissions Office. Application forms will be mailed upon request or can be downloaded from the internet at (www.fiu.edu/orgs/admiss/application.html). The admission process may take as long as two months after the University receives a student's application, depending upon the time involved in obtaining transcripts and test scores. Students are encouraged to apply early.

2. Have a copy of the official transcripts of all previously-earned college or university credits sent from the formerly-attended institution(s) to the University's Admissions Office.

Copies submitted directly by student applicants will not be accepted.

3. Submit scores on the Graduate Management Admissions Test (GMAT) or Graduate Record Examination (GRE), administered by the Educational Testing Service (ETS), Box 966, Princeton, New Jersey 08540. Scores must be submitted by the ETS. Registration forms will be mailed upon request.

For additional requirements, consult individual program offices listed below.

Readmission

Students who are pursuing a graduate degree in the College of Business Administration but who have not completed any course at the University for three consecutive semesters (including summer) must apply for readmission. If readmitted, such students must comply with the University and College's degree program requirements in effect at the time of readmission.

Transfer Credit

A student may receive permission to transfer up to a maximum of six semester hours of graduate credit towards his/her degree program, if:

- 1) The courses were taken at the graduate level at an accredited college or university;
- 2) The courses were not introductory or survey in nature;
- 3) The student earned grades of "B" or higher in the courses;
- 4) The courses are judged by the Department Chair, College Dean, and program manager to be relevant to the student's graduate program;
- 5) The credits were not used toward another degree; and
- 6) The credits were completed within six years immediately preceding the College's awarding of the degree.

Credits are not transferable until the student has earned 15 semester hours in a College of Business Administration graduate degree program.

Change of Program

The graduate student who wishes to change his or her graduate program of study must submit a "Graduate Change of Program" request to the College's Graduate Advising Office and meet the admission and degree program requirements in effect at the time of the change.

Degree Requirements

To be eligible for a Master's degree, a student must:

1. Satisfy all University requirements for a Master's degree;
2. Satisfy required prerequisites;
3. Meet the requirements of his or her graduate "Course of Study." This "Course of Study" is developed by the student and his or her graduate advisor following his or her admission to a program and is approved by the appropriate Department Chair or Program Director.
4. Complete the required courses in the specific graduate program in which he/she is enrolled.
5. Earn a minimum average of "B" (3.0) in all approved courses in the student's approved course of graduate study.

No courses in which a graduate student earns a grade below "C" may be counted towards any Master's degree program in the College. However, all approved undergraduate and graduate course work a graduate student takes will be counted in computing his or her grade point average, including courses in which he or she has earned a "D" or "F" grade.

Faculty have the discretion to administratively drop students who do not attend the first class of a course.

Time Limit

All work applicable to a Master's degree, including transfer credit, must be completed within six years immediately preceding the awarding of the degree.

Study Abroad Programs

Graduate students in the College may earn a maximum of three (3) credit-hours only for study abroad programs unless otherwise prescribed by their degree program.

Master of Business Administration (M.B.A.)

The Master of Business Administration degree is designed to give students a general management education and to help them better prepare for their chosen careers. Some concentrations are available within this degree program.

Course work leading to an M.B.A. degree is designed to provide students a breadth of business knowledge, an orientation towards pragmatic problem-solving, and an understanding of the concepts and techniques of business administration. The program focuses

on academic excellence and on innovative approaches within an international economic framework.

The College offers four programs leading to the M.B.A. degree. Each program is designed to meet different student needs. The M.B.A. programs are: the part-time Evening M.B.A., the Executive M.B.A., the International M.B.A., and the Global (e)M.B.A. for Managers in the Americas. A weekend M.B.A. program is also available for weekend B.B.A. alumni only. Call (305) 348-4052 for information.

An overview of each of these programs is provided below. For specific degree requirements in each program, please contact the program office or director.

Evening Master of Business Administration (EVE MBA)

The part-time Evening Master of Business Administration (EVE MBA) program is designed to give students a general management education and to help them prepare for advancement in their business careers. Since it is a part-time program, it is especially valuable for those students who work full-time during the daytime hours.

The part-time Evening M.B.A. program offers courses four evenings—Monday through Thursday—per week. Classes are held on the College's University Park campus. The required Professional Development Seminars are offered in the Fall and Spring terms.

Students may take up to four regular courses and a Professional Development Seminar per semester, though the majority of students opt to take two courses and a Professional Development Seminar per semester and generally earn their M.B.A. degree in about three years. Students also must own or have access to a laptop computer with a specified configuration and with wireless capability.

For additional information about the Evening M.B.A. program, please contact the program director, at (305) 348-3256 or 4723 or address your inquiry to evemba@fiu.edu

Value-Added Programs

Executive Master of Business Administration

The Executive Master of Business Administration (EMBA) degree program, designed for working business professionals, delivers a total graduate education experience preparing students for new and expanding

responsibilities as senior-level functional or general managers. It is a rigorous, tuition-plus-fees program that is limited to a select number of qualified students.

Program participants earn their MBA degree without interrupting their careers. Structured so that all requirements can be completed in twenty-one months, the program is offered on three Saturdays and one Friday per month at the Roz and Cal Kovens Conference Center on the Biscayne Bay Campus.

For additional information about this value-added program, call the EMBA office at (305) 348-1036 or email emba@fiu.edu

International Master of Business Administration (IMBA)

The IMBA (International MBA) degree program features an MBA curriculum with an international business focus. This value-added program has been especially designed for students/working professionals interested in pursuing their international business careers. For students from outside the U.S., it represents an opportunity to prepare for executive positions in the U.S. as well as in other parts of the world. For students in the U.S. who would like to assume business leadership in international businesses, it provides an integrated perspective of international business issues and the knowledge they need to succeed in a rapidly evolving, global economy.

Given the College of Business Administration's Miami location and expertise in Latin American and Caribbean business, the program is particularly valuable for those who want to secure executive positions in The Americas.

The IMBA program incorporates these unique features:

- Twelve months of courses offered in six-week and three-week terms
- Day-time classes five days per week
- Global and multicultural perspective throughout
- International internships for U.S. students (U.S. for international students)
- International study components

For more detailed information about the IMBA program, please contact the program director, at (305) 348-6880 or by email imba@fiu.edu

Global (e)MBA for Managers in The Americas

The Global (e)MBA is designed to give experienced business professionals a focused, convenient, and intensive MBA experience that provides a thorough and in-depth understanding of what it will take for business enterprises to succeed in the highly-competitive, technology-enabled and fast-paced global economy of the 21st century. It is structured specifically to meet the needs of managers who now work full-time in companies in Latin America or in the Latin American offices of multinational corporations. Because it combines brief residency sessions in Miami with Internet-facilitated instruction, it offers a convenient way for participants to earn their MBA while continuing to fulfill their ongoing work and travel commitments throughout The Americas.

The Global (e)MBA builds on those features of our MBA offerings which have proven to be particularly valuable to managers in The Americas, emphasizing the strategic and tactical issues facing Latin American business operations within a global context and the ways recent developments like e-commerce, global supply chain management, and strategic alliances can be used for competitive advantage. Faculty in the program offer their own unique perspectives based on their international educational and consulting experiences, their work with the many multinationals whose Latin American headquarters are in Miami, and their familiarity with the largely Latin and international student body at the university itself.

A top-notch curriculum, expert faculty, and the diversity of the participants themselves help ensure that the Global (e)MBA program creates a rich learning environment for everyone involved. Key features of the program include—

- ◆ It's an intensive, thirteen-month program of study.
- ◆ It capitalizes on faculty and participants' varying perspectives, backgrounds, and business experiences globally and in Latin America.
- ◆ It combines one-week residency sessions in Miami with Internet-based coursework and team projects.
- ◆ Its capstone, entrepreneurial strategy simulation, exclusively designed for the MBA program, culminates in the presentation

of business proposals to venture capitalists.

- ◆ It provides a high level of personal service, including individual instruction and leadership development

For more information, prospective applicants should contact the program manager at (305) 348-1713 or email webemba@fiu.edu

Master of International Business (MIB)

The Master of International Business (MIB) degree is an eight-month program designed for students who want to pursue a career in this dynamic global business environment. Specifically it is tailored to meet the needs of business professionals who want to participate in a U.S.-based graduate business program that provides a global perspective; who have an undergraduate business degree and are in the early stages of their professional careers; who have good English language skills but want to improve their fluency in a business context; and who expect to assume progressively higher levels of management responsibility in their firms.

The global character of the MIB program is inherent in its curriculum and in the multinationality of the students enrolled in it. Because they move through the program as a group, students continually share and learn from their diverse perspectives and experiences. In addition to the international business expertise of its faculty, the program features lectures and seminars by multinational, foreign, and U.S.-based corporate business leaders. Its key features include—

- ◆ An intensive graduate business curriculum that can be completed in 8 months
- ◆ A focus on the emerging global system and its multinational business implications
- ◆ An emphasis on supply chain management
- ◆ A collaborative, team-based, and action-learning environment
- ◆ A high level of personal service and support

MIB students also benefit from studying in South Florida, particularly since Miami is a major center for international trade and finance and a gateway linking the Americas to the world.

For more information about this program, please contact the program

director at (305) 348-3279 or by email mib@fju.edu

Ph.D. Program

The College of Business Administration offers a Ph.D. in Business Administration. The objective of this degree program is to prepare students for a career in academia by building their understanding of the substantive domains and literature within their selected areas of concentration. It provides them with the methodological and analytical tools required for executing research and creating knowledge. It develops their skills in formulating, conducting, and communicating quality research. In the process, it also fosters their ability to teach effectively.

The Ph.D. program typically requires four years of full-time study: two-and-a-half years of coursework and summer projects and a year-and-a-half of dissertation research. Students will take a minimum of 16 courses (with a minimum of six courses in their chosen area of concentration). Students also will complete summer research projects under faculty supervision.

Areas of Concentration

Information Systems

Marketing

Admission Requirements

All qualified students are encouraged to apply to the program, regardless of their sex, age, race, color, creed, handicap, marital status, or national or ethnic origin. Applications are accepted from prospective students with a broad variety of educational backgrounds, including areas like business, liberal arts, and the sciences. Those students selected for the Ph.D. program must demonstrate strong evidence of ability, scholarly interest, and success. Applicants should submit the following:

1. A completed application form and processing fee.
2. Three letters of recommendation.
3. Official transcripts from all institutions in which the applicant has completed any undergraduate and graduate course work. Applicants are expected to have at least a 3.0 GPA in their graduate coursework.
4. A report from the Educational Testing Service giving the applicant's score on the Graduate Management Admissions Test (GMAT). Entering students are expected to score a minimum of 560 on the GMAT.

5. A formal statement of purpose for seeking the doctoral degree and

specific reasons for applying to Florida International University.

6. If applicant is an international student whose native language is one other than English, an official report of his or her score on the TOEFL from the Educational Testing Service. A minimum score of 570 (230 on computer-based test) is expected. Such applicants also should review the "General Admission Requirements for Foreign Students" in the "Admission" section of this catalog.

The College admits a new class of doctoral students only during the Fall semester of even-numbered years. Complete applications must be received by March 1 of even-numbered years. Acceptance decisions typically will be made in April of those years.

Applicants are considered once all the required documents have been received.

Degree Requirements

General degree requirements for all candidates for a Ph.D. in Business Administration include:

1. Successful completion of all required coursework.
2. Successful completion of a comprehensive examination at the end of this coursework.
3. Successful completion of a doctoral dissertation.

Financial Aid

Applicants to the doctoral program may request financial aid by completing the appropriate form. Stipends requiring a mixture of research and teaching are available. These stipends may include both a cash award and a tuition waiver, depending upon the applicant's qualifications.

Note: The programs, policies, requirements, and regulations listed in this catalog are subject to continual review in order to meet 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 may be made without advance notice. Please refer to the "General Information" section of this catalog for the University's policies, requirements, and regulations.

School of Accounting

Dana Forgione, *Professor and Director*

Rolf Auster, *Professor*

Delano H. Berry, *Lecturer*

Lewis F. Davidson, *Professor*

Manuel Dieguez, *Instructor*

Motimer Dittenhofer, *Professor*

Donald W. Fair, *Instructor and Associate Dean*

Georgina Garcia, *Instructor*

Delano Gray, *Instructor*

Rosalie C. Hallbauer, *Associate Professor*

Kenneth Henry, *Visiting Lecturer*

David Lavin, *Associate Professor*

Chih-Chen Lee, *Assistant Professor*

Myron S. Lubell, *Associate Professor*

and *Director, E.M.S.T. Program*

Peter Manheimer, *Lecturer*

Kenneth S. Most, *Professor Emeritus*

Robert R. Oliva, *Professor*

Felix Pomeranz, *Professor*

Leonardo Rodriguez, *Professor*

Ena Rose-Green, *Assistant Professor*

Krishnamurthy Suryekar, *Assistant Professor*

Clark Wheatley, *Associate Professor*

John Wrieden, *Senior Lecturer*

Purpose

The mission of the School of Accounting is:

- To provide students with an up-to-date education in professional accounting with due attention to its quality and timeliness in light of a marketing and regulatory environment continually being affected by rapid changes in technology.
- To provide the professional community in government, industry, and public accounting with graduates who are exceptionally well qualified professionals at various levels and who will have mastered the techniques necessary to manage in a climate of dynamic change.
- To create a positive climate for students to develop their ethical value system and a commitment to life-long learning.
- To promote pure, applied, and instructional research which expands the boundaries of knowledge, supports the work of practitioners, and welds the latest research results to the latest teaching techniques.
- To support and recognize the development of the faculty regarding their teaching, research and service responsibilities.

- To support the accounting and other professions in South Florida and elsewhere with life-long learning via short courses, conferences, and published materials designed to hone practitioners' skills in the latest technical and professional developments and in recognizing environmental trends that may affect future practices.
- To provide meaningful knowledge of professional accounting concepts and information to other academic and professional disciplines.
- To support the mission and objectives established by the College of Business Administration and to foster the design and implementation of the University's strategic and tactical plans.

Master's Degree Programs

The School of Accounting offers two graduate degree programs: Master of Accounting and Master of Science in Taxation. The programs are designed for students who have completed an undergraduate degree in accounting, or the equivalent, from a regionally accredited college or university. The Director of the School of Accounting will determine the equivalency of students' undergraduate degrees.

Students whose undergraduate degrees are in majors other than accounting will be required to make up for any business and/or accounting deficiencies. The Director of the School must approve programs of study for students seeking to correct such deficiencies.

All students taking graduate accounting and tax courses must be fully admitted to one of the graduate accounting programs or have written permission from the Director of the School. Registration for all such course work must be made through the appropriate College advisor, whose signature, along with the School's stamp, must be attached to the registration packet.

Graduate students can pre-register during a two-week period beginning three weeks before the official University registration period.

Special Program Requirements

A student with a degree in business who is admitted into the Master of Accounting (M.Acc.) program may be required to complete up to 10 accounting pre-core courses (30 credit hours), to be selected from the following three credit-hours courses:

ACG 4101	Financial Accounting I
ACG 4111	Financial Accounting II
ACG 6205	Financial Accounting III
ACG 4651	Auditing
ACG 4401	Accounting Systems Management
ACG 4341	Accounting and Control
BUL 4320	Business Law I
BUL 6831	Business Law II
TAX 4001	Income Tax
TAX 6015	Taxation of Corporations and Partnerships

A student with a non-business degree who is admitted to this program will be required to complete, in addition to the pre-core courses listed above, the pre-core courses for the Evening M.B.A. program. The exception is BUL 6810 (Legal Environment of Business), for which MAN 6726 (Strategic Management) must be substituted.

Master of Accounting (M.Acc.)

The Master of Accounting degree program prepares students for a career in accounting. For those already pursuing such a career or who are seeking to change careers to one in accounting, the program offers excellent preparation as well. The program satisfies the 30 semester hours beyond a Bachelor's degree required for the CPA examination.

Depending on a student's interests, he or she can select concentrations that will prepare him or her for a variety of careers:

Concentration	Career
Financial Accounting/ Auditing	Independent Accountant in public accounting
Systems	Accounting systems, consultant, auditor, corporate officer, or public accountant
Internal Auditing	Internal auditor, industry or government
Corporate Management Accounting	Internal accountant or corporate officer

Students interested in sitting for the CPA examination must include law and 36 hours of accounting as required by the Florida Statute.

Degree Requirements

Students pursuing a M.Acc. with any of the concentrations listed above must complete the following requirements:

Accounting Core

ACG 6135	Seminar in Financial Accounting Theory I
ACG 6657	The Environment of Accounting
ACG 6437	Advanced Accounting Systems

Unless approved in advance by the Director of the School, these required courses cannot be transferred.

Electives

Electives (seven courses) must be selected from the following two groups of courses:

1. No more than two courses from this list:

TAX 6065	Tax Research Practice and Procedure
TAX 6105	Taxation of Corporations I
TAX 6205	Partnership Taxation

2. Additional 6000-level courses, approved by the Director, School of Accounting, with a minimum of four courses (12 credit hours) in a single concentration selected from a) financial accounting/auditing; b) systems; c) internal auditing; or d) corporate/management accounting

Master of Science in Taxation (M.S.T.)

The Master of Science in Taxation program prepares students for entry and advancement in the specialized area of taxation. The program satisfies the 30 semester hours beyond a Bachelor's degree required for the CPA examination.

The Director of the School of Accounting must approve students' programs of study.

Degree Requirements

Tax Core	12 hours
Electives	18 hours

Tax Core

TAX 6065	Tax Research Practice and Procedure
TAX 6105	Taxation of Corporations I
TAX 6405	Estate and Gift Taxation
TAX 6875	Current Developments in Taxation

Electives

Six additional 6000-level courses approved by the Director, School of

Accounting, three of which must be tax courses (excluding TAX 6005, and TAX 6935).

Note: Students admitted to the M.S.T. program who wish to sit for the CPA exam and who are required to complete deficiencies in undergraduate accounting by completing the accounting pre-core courses are not required to take TAX 4001, Income Tax, as part of the Accounting Pre-Core.

For additional information about the program, contact Robert R. Oliva, program manager, (305) 348-2582 or email rolivar@fiu.edu.

Florida CPA Requirement

Completing a Bachelor of Business Administration with a concentration in Accounting does not alone meet the Florida State Board of Accountancy requirements for the CPA exam. With a carefully-planned program of study, a student who earns either a M.Acc. or an M.S.T. will be qualified to sit for the CPA exam and, upon completing it successfully, will be certified in the State of Florida. There is no additional experience requirement.

Executive Master of Science in Taxation (E.M.S.T.)

The Executive Master of Science in Taxation (E.M.S.T.) degree program is a special, two-year program tailored to address the needs of working professionals who wish to obtain the degree in a flexible time span. The program, which is a tuition-plus-fee offering, is also designed to satisfy the additional 30 semester hours beyond the Bachelor's for the CPA examination.

For additional information about this program, contact the program director, Myron S. Lubell, at (305) 919-5514, or be email lubellm@fiu.edu

Decision Sciences and Information Systems

Christos P. Koulamas, *Professor and Chair*

Dinesh Batra, *Associate Professor*

Joyce J. Elam, *Professor, James L. Knight Eminent Scholar, and Dean*

Irma Becerra Fernandez, *Assistant Professor*

Sushil K. Gupta, *Professor*

Joseph T. King, *Lecturer*

Gerard Klonarides, *Visiting Instructor*

Kuldeep Kumar, *Professor and Ryder Eminent Scholar*

George J. Kyparisis, *Professor*

Yair Levy, *Instructor and Online Learning Project Manager*

Cherie Long, *Assistant Professor*

Tomislav Mandakovic, *Professor*

Ligia Mintchev, *Instructor*

Kenneth E. Murphy, *Assistant Professor*

Jose Noguera, *Assistant Professor*

Manoel Oliveira, *Instructor and Director of Technology*

Clifton Scott, *Instructor*

Larry A. Smith, *Associate Professor*

Duane Truex, *Assistant Professor*

Paul Van Fenema, *Visiting Instructor*

Tei-Wei Wang, *Visiting Lecturer*

Nicole Wishart, *Instructor*

Steve H. Zanakis, *Professor*

Peter J. Zegan, *Instructor*

Purpose

With the rapid decrease in information technology cost/benefit ratios, the advancement of graphical user interfaces, and the development of the Internet, information systems have become ubiquitous and strategic.

Students in the information systems concentrations use new or existing research methods to help understand the ways in which contemporary organizations design, employ, and manage information systems.

Students in our graduate programs learn the intellectual frameworks and methods used in areas like systems analysis and design (including object-oriented applications), database management, decision support systems (including data warehousing), global electronic commerce, enterprise-wide information systems, and information systems management.

The Department of Decision Sciences and Information Systems offers a Master of Science in Management-Information Systems (M.S.M.I.S.) and a concentration in the Ph.D. program.

Master of Science in Management with a Track in Information Systems (M.S.M.I.S.)

The Master of Science in Management-Information Systems (M.S.M.I.S.) program is a selective, limited-access, tuition-plus-fees program in which students proceed as a cohort through a lock-step curriculum designed to maximize their learning experience.

The program is structured in six "blocks" or sessions, with each session consisting of two courses and lasting about eight weeks. Classes meet on Saturdays for a full day. Students in this program are required to own or have access to a laptop computer with wireless capability. To complete this 36 credit-hour program successfully, students must maintain a B average (3.0 GPA).

For additional information, please contact the program manager at (305) 348-4126 or visit www.fiu.edu/~msis

MIS Concentration in the Ph.D. Program

The Department of Decision Sciences and Information Systems offers a Management Information Systems (MIS) concentration in the doctoral program in Business Administration. The concentration requires completion of the following six courses (18 credit-hours):

ISM 7935	Foundations of IS Research
ISM 7306	Seminar on Managing Information Resources
COP 7545	File and Database Systems
ISM 7126	Systems Analysis and Design
ISM 7406	Decision Support Systems
ISM 7xxx	Enterprise Information Systems

Please contact the Department Chair for further requirements and details.

Finance

Emmanuel Roussakis, Florida
*International Bankers Association
 Professor of Finance; Director,
 Certificate Programs in Banking,
 and Chair*

Gary Anderson, Associate Professor
Joel Barber, Associate Professor

Robert Bear, Professor
**Gerald O. Bierwag, Ryder
 Professor**

**Chun-Hao Chang, Associate
 Professor**

**Robert T. Daigler, Associate
 Professor**

Krishnan Dandapani, Professor

**Maria E. de Boyrie, Assistant
 Professor**

**Shahid Hamid, Associate Professor
 and Director, M.S.F. Program**

**James Keys, Instructor and Advisor,
 M.S.F. Program**

**Raul Moncarz, Professor and Vice
 Provost, Academic Affairs**

**Simon Pak, Associate Professor and
 Associate Director, Center for
 Banking and Financial Institutions
 and Jerome Bain Real Estate
 Institute**

Ali M. Parhizgari, Professor

Arun Prakash, Professor

Rajeswar Sirpal, Instructor

William Welch, Associate Professor

**John S. Zdanowicz, Professor and
 Director, Center for Banking and
 Financial Institutions, and Director,
 Jerome Bain Real Estate Institute**

Purpose

The Department of Finance's graduate program seeks to extend and deepen students' understanding of finance in both its theoretical and practical dimensions. It primarily serves students with an undergraduate business degree who wish to secure additional expertise in the discipline.

The Department offers a Master of Science in Finance (MSF) degree that prepares graduates to analyze and solve problems related to obtaining and using real and financial assets and liabilities. The curriculum grounds students in the areas of banking, corporate finance, investment, portfolio management, financial risk management, financial engineering, financial markets, institutions, and international finance. It provides them with concepts and applications framed within the most current developments in these fields.

The Department also offers a Finance Concentration in the M.B.A. program. Contact the Graduate Advising Office for details.

Master of Science in Finance (M.S.F.)

To earn a Master of Science in Finance degree, students must complete a minimum of 33 semester hours (11 courses)

Foundation Courses*	12 hours
Finance Core Courses	15 hours
Finance Electives	9 hours
Related Electives	9 hours

*Foundation Courses may be used as Finance and/or Related Electives.

The 33 credit-hour requirement may be reduced to 30 hours for students who have an accredited Master's degree in Business Administration (M.B.A.). In addition, students may be allowed to transfer one graduate course from an accredited university even if they did not secure an advanced degree.

Students may need to take a number of Foundation Courses if their prior education does not reflect the required base of knowledge. Students with a recent Bachelor's degree in Business Administration from a regionally-accredited university would be waived from most of the foundation Courses.

The Foundation Courses cover a body of knowledge that includes financial and cost accounting, financial reporting, economics, statistics, quantitative methods, and corporate finance. Should the student be deficient in any of these subjects, he/she would be required to take the appropriate Foundation Course. All students must take FIN 6428, Corporate Finance, unless they have completed at least two undergraduate corporate finance courses with a grade of "B" or above.

The following courses are required for the M.S.F. degree:

Foundation Courses (unless waived)

ACG 6175**	Financial Reporting and Analysis
ECP 6705	Managerial Economics
FIN 6456	Quantitative Methods in Financial Analysis
FIN 6428**	Corporate Finance

**ACG 6026 (Accounting for Managers or equivalent is a prerequisite to ACG 6175/FIN 6428.

Finance Core Courses (15)

FIN 6246	Financial Markets and Institutions
FIN 6487	Financial Risk Management
FIN 6516	Security Analysis
FIN 6644	Global Financial Strategy
FIN 6804	Theory of Finance

Finance Electives (9)

Students must complete 9 credit-hours of approved 6000-level Finance Electives.

Related Electives

Students must complete 9 credit-hours of approved 6000-level Related Electives from Business, Computer Science, Economics or a related field. Students will be permitted but not required to select one area of concentration.

Students should obtain the approval of the M.S.F. program advisor before choosing Finance and/or Related Electives. The minimum passing grade for any FIN 6000 level course is "B-." The minimum passing grade for all other required courses is "C." M.S.F. students must maintain an overall grade point average (GPA) of 3.0 as well as a 3.0 GPA in all FIN 6000 level courses.

For more information, contact the program advisor (305) 348-2727.

Management and International Business

K. Galen Kroeck, *Professor and Chair*
 Constance S. Bates, *Associate Professor and Barsky-Greenstein Professor*
 Laquita Blockson, *Assistant Professor*
 Deborah Cohen, *Associate Professor*
 Gary Dessler, *Professor*
 Herman Dorsett, *Associate Professor*
 Dana L. Farrow, *Professor*
 Earnest Friday, *Assistant Professor*
 Ronald Gilbert, *Associate Professor*
 Carolina Gomez, *Assistant Professor*
 Richard M. Hodgetts, *SunTrust Professor*
 Robert Hogner, *Associate Professor*
 Laura Kozloski, *Lecturer*
 Jan B. Luytjes, *Professor*
 Karl O. Magnusen, *Professor*
 Modesto A. Maidique, *Professor and University President*
 J. Randall Martin, *Lecturer*
 Andrew McCosh, *Chapman Eminent Scholar in Management and Ethics*
 Sherry Moss, *Associate Professor and Faculty Coordinator, Executive M.B.A. Program*
 Karen Paul, *Professor*
 Clifford Perry, *Visiting Distinguished Executive Professor and Research Fellow, Knight Ridder Center*
 Leonardo Rodriguez, *Professor*
 Donald Roomes, *Instructor and Director, Weekend B.B.A. Program*
 Philip Shepherd, *Associate Professor*
 Ronnie Silverblatt, *Associate Professor*
 George Sutija, *Associate Professor*
 Enzo Valenzi, *Professor*
 Mary Ann Von Glinow, *Professor and Director, CIBER*

The Department of Management and International Business offers a concentration in International Business within the Evening M.B.A. program. Contact the Graduate Advising Office for additional information.

Marketing

J.A.F. Nicholls, *Professor and Chair*
 Peter R. Dickson, *Eminent Scholar in Marketing, Knight Ridder Center for Excellence in Management*
 Sally Gallion, *Assistant Dean*
 Jonathan N. Goodrich, *Professor*
 Barnett A. Greenberg, *Professor*
 Carl Kranendonk, *Instructor*
 Walfried Lassar, *Associate and Barsky-Greenstein Professor*
 Tiger Li, *Associate Professor*
 Paul Miniard, *BMI Professor of Marketing*
 Michael S. Munro, *Instructor*
 Marta Ortiz, *Associate Professor*
 Lynda Raheem, *Instructor and Assistant Dean*
 H. Paul Root, *James K. Batten Eminent Scholar in Strategic Management, Lecturer, and Director of the Knight Ridder Center for Excellence in Management*
 Sydney Roslow, *Professor Emeritus*
 Bruce Seaton, *Associate Professor*
 Kimberly Taylor, *Associate and Barsky-Greenstein Professor*
 John Tsalikis, *Associate Professor*

The Department of Marketing offers concentrations in Marketing in both the M.B.A. and the Ph.D. programs. Contact the Department Chair for additional information.

Course Descriptions

Definition of Prefixes:

ACG-Accounting; BAN-Banking; BUL-Business Law; CGS-Computer and Information Systems; ECO-Economics; FIN-Finance; GEB-General Business; ISM-Information Systems Management; MAN-Management; MAR-Marketing; QMB-Quantitative Methods in Business; REE-Real Estate; SPC-Speech; TAX-Taxation; TRA-Transportation.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

Departmental or School/College Designation:

AC - School of Accounting
AS - College of Arts & Sciences
BA - College of Business Administration
DS - Decision Sciences and Information Systems
EC - Economics
FI - Finance
MA - Management and International Business
ME - Marketing
MS - Mathematical Sciences
TD - Theatre and Dance

ACG 5137 Standards and Principles of Financial Accounting (AC) (3). A survey of official pronouncements on accounting standards and principles. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5256 International Dimensions of Accounting and Auditing (AC) (3). Review of and reasons for variations in accounting and auditing practices throughout the world; explore initiatives undertaken to promote transparency, harmonization, and standardization to facilitate understanding of financial statements prepared under various conventions. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5307 Advanced Managerial Accounting (AC) (3). In depth study of determination and control of production costs; budgetary control; CVP analysis; and alternative methods of performance measurement and analysis. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5386 Controllorship (AC) (3). Study of controllorship function; role of controllor in planning, accounting for, and evaluating company performance; relationship with internal audit-

ing. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5395 Seminar in Managerial Accounting (AC) (3). An in-depth study of selected areas of managerial accounting. Prerequisite: ACG 4341 or equivalent and Permission of Accounting certificate program advisor.

ACG 5507 Issues and Problems in Accounting for Non-Profit Entities (AC) (3). Study and analysis of accounting, reporting, and control standards and practices of non-profit organization - including accounting for governments, hospitals, universities, churches, and others. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5516 The Environment of Government Accounting (AC) (3). Basic public administration emphasizing governmental processes with which governmental accountants and auditors come into contact. Includes legislative and administrative activities and operating functions having high accounting and auditing involvement. Prerequisite: Permission of accounting certificate program advisor.

ACG 5518 Historical and Comparative Government Accounting (AC) (3). Research and reporting on subjects in the history of, or on comparative aspects of, government accounting. Prerequisite: Permission of accounting certificate program advisor.

ACG 5519 Contemporary Issues in Government Accounting (AC) (3). Research and reporting on current issues related to government accounting. Prerequisite: Permission of accounting certificate program advisor.

ACG 5545 Analysis of Governmental Financial Reports (AC) (3). Describes content of government financial reports and analytical methods employed by internal and external users; covers concepts of disclosure, budget/actual analysis, credit evaluations, operational evaluations, measures of fiscal capacity and signs of fiscal stress. Prerequisites: Permission of accounting certificate program advisor.

ACG 5546 Governmental Planning and Budgetary Accounting with Cases (AC) (3). Budgeting in governments emphasizing formulation based on accounting and auditing input. Budget execution and analysis of deviations of actual from budgets; study of ZBB, PPBS, and MBO systems and their behavioral and

accounting bases. Prerequisites: Permission of accounting certificate program advisor.

ACG 5596 Accounting for Specialized Governmental and Nonprofit Entities (AC) (3). Survey course by guest lecturers covering detailed accounting concepts, procedures, and reporting for enterprise fund entities, educational entities, and unique types of internal service funds. Prerequisites: Permission of accounting certificate program advisor.

ACG 5627 Systems Auditing (AC) (3). Principles and procedures of auditing systems of information, including the function, approach, and techniques of systems auditing and the evaluation of systems controls. Emphasis on auditing computerized systems. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5675 Operational Auditing (AC) (3). Examines operational auditing as a professional discipline for testing and evaluating totality of planning and operating controls; particular attention to development, selling and implementation of recommendations for operating improvement and cost containment. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5696 Seminar in Auditing (AC) (3). An in-depth study of recent developments in auditing. Prerequisite: ACG 4651 or equivalent and permission of Accounting certificate program advisor.

ACG 5806 Seminar in Financial Accounting (AC) (3). An in-depth study of recent developments in financial accounting. Prerequisite: ACG 4111 and permission of Accounting certificate program advisor.

ACG 5846 Statistical Methods in Accounting and Auditing (AC) (3). Formulation, analysis and implementation on a microcomputer of mathematical models in financial and managerial accounting and auditing. Prerequisite: Permission of Accounting certificate advisor.

ACG 5905 Independent Study in Accounting and Auditing (1-3). Individual conferences, supervised readings, and reports on personal investigations. Prerequisites: Written Permission of the instructor, accounting certificate program advisor, School Director, and Dean.

ACG 5936 Special Topics in Accounting and Auditing (AC) (3). 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. Prerequisite: Written Permission of the instructor, accounting certificate program advisor, School Director, and Dean.

ACG 6026 Accounting for Managers (AC) (3). Presentation of the nature, techniques and uses of accounting from the perspective of people who manage businesses and investments in businesses. Covers both financial and management accounting. Not open to M.S.T. or M.Acc. students.

ACG 6135 Seminar in Financial Accounting Theory I (AC) (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: Baccalaureate in accounting or equivalent and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6145 Seminar in Financial Accounting Theory II (AC) (3). A continuation of ACG 6135, with emphasis on the problems of accounting for price-level changes and other current issues. Prerequisite: ACG 6135 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6175 Financial Reporting and Analysis (AC) (3). Comprehensive treatment of analysis of financial statements as aid for decision making; looks at current state of financial reporting practices and impact of published statements on economic systems. Prerequisites: ACG 6026, FIN 6428 or equivalent. Not open to M.S.T. or M.Acc. students.

ACG 6205 Financial Accounting III (AC) (3). Underlying concepts and ethical, regulatory and business environment of financial reporting, with emphasis on accounting for partnerships, international corporations, and business combinations. Prerequisite: ACG 4111 with a grade of 'C' or higher and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6245 Accounting and Auditing Compliance Issues (AC) (3). Corporate, government and public accounting compliance with response to institutional and political regulation; attention to compliance in specialized industries such as health care, transportation, financial institutions' real estate and construction. Prerequisites: ACG 4111 or equivalent, ACG 4651 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6255 International Accounting (AC) (3). 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: ACG 6026 or equivalent, and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6295 Financial Accounting IV (AC) (3). The application of accounting principles in the production of information for selected topics in financial statements with extensive examination and evaluation of FASB and international standards of accounting. Prerequisites: ACG 6205 and admission to a graduate program in the School of Accounting or the permission of the Director.

ACG 6345 Management Accounting and Control (AC) (3). Accounting concepts and techniques useful in evaluation, planning, organization and control of a business enterprise, with attention to methods of accounting for production activities; ethics in management accounting. Prerequisites: ACG 4111 and admission to a graduate program in the School of Accounting or permission of the School Director. Not open to those with undergraduate accounting degrees.

ACG 6346 Seminar in Managerial Accounting I (AC) (3). Analysis of transfer pricing; product pricing; incremental profit analysis; decision models; alternative performance measurement techniques; and other advanced topics. Prerequisite: ACG 4341 or ACG 6026, and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6356 Seminar in Managerial Accounting II (AC) (3). A study of the

controllershship function in corporate organizations; an appraisal of the controller's role in planning, accounting for, and evaluating company performance; and relationship to internal audit function. Prerequisite: ACG 4341 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6385 Managerial Control and Controllershship (AC) (3). Control methods for management; control structure, planning and forecasting for budgets; the functions of controller-ship, including cash management, risk management, investments, tax administration and records management. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6405 Seminar in Accounting Information Systems I (AC) (3). Accounting information systems security and control and legal and ethical compliance; control of computer failure and abuse and compliance with laws, regulations, and standards. Computer usage required. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6415 Seminar in Accounting Information Systems II (AC) (3). Accounting information systems for strategic use in the management of competitive enterprises; budgeting, performance measurement, and cost accounting for generating strategic information. Computer usage required. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6437 Advanced Accounting Systems (AC) (3). Development and control of information systems for accounting, emphasis on new microcomputer technology, software engineering, methods of data processing and database management systems. Prerequisites: ACG 4401 or equivalent and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6445 Accounting Information Systems Analysis and Design (AC) (3). Accounting applications of information systems analysis and design concepts, methods, and tools; requirements, design, control, and prototyping of accounting information systems. Computer usage required. Prerequisites: Admission to a graduate

program in the School of Accounting or permission of the School Director.

ACG 6455 Accounting Information Systems Technology, Control and Audit I (AC) (3). Accounting applications, control, and audit of large computer systems; technology, control concepts and procedures, audit testing and documentation, and control and audit software. Computer usage required. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6456 Accounting Information Systems Technology, Control and Audit II (AC) (3). Accounting applications, control, and audit of small computer systems; technology, control concepts and procedures, audit testing and documentation, and control and audit software. Computer usage required.

ACG 6506 Governmental and Institutional Accounting (AC) (3). Budgeting, accounting, and reporting standards and practices for government and other not-for-profit entities. Prerequisite: ACG 4111 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6515 Advanced Governmental Accounting (AC) (3). Treats the developing concept of consolidated financial statements for governments. Also covers advanced areas of accounting, e.g., concepts, investment accounting, grant accounting, and pension accounting. Prerequisites: ACG 6505, ACG 6584, admission to graduate program in School of Accounting or permission of School Director.

ACG 6517 Audit of Governmental Entities (AC) (3). Covers methods of audits of governments by independent public accountants, coordination with internal audit staffs; describes audits of governments by internal auditors (audits of fidelity, efficiency and effectiveness); covers current single audit concept. Prerequisites: ACG 6505, admission to the graduate program in the School of Accounting, or permission of School Director.

ACG 6625 EDP Auditing Concepts (AC) (3). Understanding and application of concepts and procedures of auditing computer information systems; analysis, testing, and documentation of computer security and controls for management and

financial statement reports. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6655 Auditing and Accounting Systems (AC) (4) Standards and procedures of auditing, ethics and responsibilities of auditors, audit evidence, reporting, international standards; design and control of accounting information systems. Prerequisites: ACG 4111 with a grade of 'C' or higher and admission to a graduate program in the School of Accounting or permission of the School Director. Not open to those with a undergraduate accounting degree.

ACG 6657 The Environment of Accounting (AC) (3). Economics and scope of accounting practice in context of self-regulated profession, public policy constraints, complex business structures and innovative transactions, and rapidly changing information technology with extensive reference to business periodicals and on-line databases. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6675 Internal Auditing (AC) (3). This course examines auditing in depth as a professionalized discipline for reviewing testing, and evaluating the financial and the operational activities and controls of an economic entity. Focus will be directed to private sector profit seeking entities as well as governmental and other nonprofit organizations. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6676 Advanced Internal Auditing (AC) (3). Special topics in internal auditing such as forensic auditing, analytical auditing, management consulting, work with external auditors, ethics, multinational aspects, evaluation methods, quality control, new technologies and recent research. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6677 Applied Internal Auditing (AC) (3). The expansion of the internal audit process into such areas as administrative and support functions; line functions such as research, sales, and production; and special areas such as compliance, budgeting and controls. Course is taught by outside lecturers.

Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6696 Current Issues in Auditing (AC) (3). Professional and technical aspects of auditing practice; introduction to SEC; ethics and legal responsibilities; emergence of non-public practice; public expectations and professional reality; the impact of technology; international auditing; recent auditing developments. Prerequisite: ACG 4651 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6835 Behavioral Accounting (AC) (3). 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. Prerequisites: ACG 4111 and 4341 or equivalents, and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6845 Accounting and Quantitative Methods (AC) (3). Study of statistical and management science techniques that are or may be utilized in financial and managerial accounting. Prerequisites: QMB 3150 and ACG 4401, or equivalents, and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6875 Evolution of Accounting Thought (AC) (3). The cultural origins of accounting and its traditional controversies, from pre-historic time onward, and in an international context. Prerequisites: Admission to graduate program in School of Accounting or permission of School Director.

ACG 6885 Accounting Research and Reporting (AC) (3). Examine the projects relating to historical and current problems in public accounting practice, and preparation of appropriate reports in oral and written formats, under a variety of professional settings. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6905 Independent Study in Accounting (AC) (1-3). Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Admission to a graduate

program in the School of Accounting or permission of the School Director.

ACG 6935 Special Topics in Accounting (AC) (1-3). Intensive study for groups of students of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 7157 Seminar: Theory and Contemporary Research in Financial Accounting (AC) (3). An evaluative overview of the classical literature in financial accounting and the contemporary empirical research published in the leading scholarly journals. Examined are income determination theories, normative accounting principles, accounting information and stock prices, and principal-agent relationships. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7177 Seminar: Accounting Information and Security Prices (AC) (3). An in-depth examination of accounting information and security prices within capital markets theory, including a thorough examination of the cross-sectional properties and time-series properties of accounting numbers and the importance of research findings and new developments in research methodology. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7436 Seminar: Information Value and Agency Research Accounting (AC) (3). An in-depth examination of the research paradigm and the associated empirical research in accounting and auditing. Examined are the issues of information value, risk aversion, risk sharing contracts, as well as accountability from the standpoint of monitoring contracts. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7695 Seminar: Contemporary Research in Management Accounting and Auditing (AC) (3). A broad overview of classical and contemporary empirical research in managerial accounting and auditing including budget and performance review, decision making, information analysis, professional judgment, sampling problems, audit risk, etc. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7836 Seminar: Behavioral Research in Accounting-Individual Behavior (AC) (3). An in-depth

examination of the relationship of cognitive psychology, cognitive models of human judgment, decision theory and accounting information. Emphasis is placed upon the human processing of accounting information, the decision value of information, and the development of decision aids or heuristics. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7837 Seminar: Behavioral Research in Accounting-Human Groups and Systems (AC) (3). The multifarious behavioral relationships of groups within the formal and informal organizational structure are examined with respect to performance measurement (efficiency and effectiveness), accountability, planning and control of the development of decision support systems. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7886 Seminar: Empirical Research Methodology and Paradigms in Accounting (AC) (3). Study of research design, methods of data collection and analysis and problems of measurement in accounting research. Empirical research studies in accounting are integrated throughout to illustrate and analyze the structural problems of research design as well as the strengths and weaknesses of various acceptable paradigms. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7887 Research Forum and Workshop (AC) (1). Regularly scheduled workshop at which visiting scholars as well as faculty and doctoral candidates present and evaluate research papers. Candidates are expected to participate in discussions, act as discussants and present their own research for critique. Sessions are held for structuring and brainstorming research projects in the formative stages as well as for presenting completed efforts. Prerequisite: Permission of doctoral advisor in Accounting.

ACG 7888 Seminar: The Philosophy of Science, Theory Construction, and Verification in Accounting (AC) (3). An examination of knowledge, theories, scientific explanation and prediction as related to the social sciences. Various theories of accounting are critically examined from the standpoint of theory construction and verification in the philosophy of science. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7889 Seminar: Positive Theory Research in Accounting (AC) (3). Construction of theory to explain accounting and auditing practices in an environment of regulation using empirical research findings from a growing body of economic-based research in accounting and finance. Prerequisite: Permission of doctoral advisor in Accounting.

ACG 7896 Accounting Research Methods on Capital Markets. (AC) (3). An advanced accounting graduate course in current time series methods used to analyze capitals and other time-related financial markets. This course is designed for Ph.D. students in accounting and business who already have advanced statistical and financial training, and serves as an introduction to other doctoral courses. Prerequisite: Permission of Ph.D. advisor.

ACG 7938 Seminar: Special Topics in Accounting Research (AC) (3). Topics vary according to instructor and student interest in problems and issues on the frontier issues of accounting. Prerequisite: Permission of doctoral advisor in Accounting.

BUL 5661 Law for Accountants (AC) (3). A survey of select topics of direct interest to accounting students, including contracts, sales, agencies, partnerships, corporations. Prerequisite: Permission of Accounting certificate program advisor.

BUL 5662 Accountant's Liability (AC) (3). Overview of accountant exposure to private and public sector liability suits, independent in auditor engagements, securities regulations and other state and federal laws of chief concern to accountants. Prerequisite: Permission of Accounting certificate program advisor.

BUL 6810 Legal Environment of Business (AC) (3). Studies the importance of law and legal institutions on commerce workings of administrative law; various aspects of employment legislation and other areas of legal environment of business. Prerequisite: Permission of accounting certificate program advisor.

BUL 6651 Special Topics in Business Law (AC) (1-6). Intensive study for groups of students of a particular topic, or a limited number of topics, not otherwise offered in the curriculum. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

BUL 6830 Survey of Business Law (AC) (3). Overview of substantive and procedural aspects of contract law, U.C.C., partnerships and corporations, accountant's liability, and other aspects of government regulation of business. Prerequisite: Admission to a graduate program in the School of Accounting, or permission of the School Director. Not open to those with undergraduate accounting degrees.

BUL 6831 Business Law II (AC) (3). Substantive issues and principles of law including agency, partnership and corporation law, commercial paper, antitrust, employment, administrative, environmental and computer law; ethical issues in business law.

BUL 6850 International Business Law (AC) (3). Analysis of legal problems facing the U.S. international and multinational businesses. Topics include the transnational research of economic regulation, international trade and investment, antitrust law, technology transfers, and securities law.

BUL 6906 Independent Study in Business Law (AC) (1-6). Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

COP 7545 File and Database Management Systems (DS) (3). Fundamentals of database concepts and methodologies, including data representation, data modeling, and file organization. Prerequisite: Graduate standing. (on demand)

ECP 6705 Managerial Economics (EC) (3). Basic microeconomic concepts as they apply to decision making within the organization; supply and demand; market structure and market behavior in specific industries. Prerequisites: ECO 3021 and ECO 3011.

ECP 6715 Macroeconomic Forecasting for Management (EC) (3). Business macroeconomic concepts as they apply to decision making within the firm. Traditional models of income determination and forecasting analysis. Prerequisite: ECP 6705.

FIN 5418 Working Capital Management (FI) (3). Intermediate theories and techniques of cash, accounts receivable, inventory, and accounts payable management. Prerequisite: FIN 3424 or FIN 6428.

FIN 5495 Leasing and Mergers (FI) (3). Discussion-oriented course; 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 3424 or FIN 6428, or equivalent.

FIN 6246 Financial Markets and Institutions (FI) (3). Analysis of the characteristics and efficiency of the money markets and capital markets. Types of money market and capital market instruments, and the role of financial institutions in these markets. Prerequisite: FIN 6428

FIN 6325 Current Issues in Commercial Banking (FI) (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 the financial sector. Prerequisite: FIN 6326 or equivalent. (on demand)

FIN 6326 Commercial Banking (FI) (3). 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 6428.

FIN 6346 Credit Analysis (FI) (3). This course examines how the accounting framework is integrated with tools and techniques for the analysis and interpretation of financial statements. Evaluation of risk in domestic and foreign loans and the pricing of credit facilities. Prerequisite: FIN 6428.

FIN 6426 Financial Management Policies (FI) (3). Advanced theories and applications underlying financial decision making. Case studies and model building. Topics may include valuation, capital structure, dividend policy, restructuring, mergers and acquisition, corporate bankruptcy, agency theory, and initial public offerings. Prerequisite: FIN 6428.

FIN 6428 Corporate Finance (FI) (3). In-depth examination of asset, liability and capital structure management, with emphasis on valuation capital budgeting techniques; risk evaluation; working capital management; and methods of short-term, intermediate

and long-term financing. Prerequisite: ACG 6026 or equivalent.

FIN 6436 Capital Budgeting and Long Term Resource Allocation (FI) (3). The theory of capital allocation at the level of the firm, and empirical findings. Decision models and their application. The pattern of capital expenditure of industries and of the economy as a whole. Investment determinants. Prerequisite: FIN 6428.

FIN 6446 Competitive Strategy (FI) (3). Provision of tools for managerial decision-making in a variety of competitive environments including demand analysis, short- and long-run costs of production, demand for factors, market structure and competitive strategy.

FIN 6455 Financial Modeling and Forecasting (FI) (3). An introduction to Financial Modeling and Forecasting. Emphasis is on computer models and forecasting the financial variables. Prerequisite: Permission of the instructor and FIN 6428.

FIN 6456 Quantitative Methods in Financial Analysis (FI) (3). Introduction to mathematical and statistical methods used in finance. The applications of computer techniques to financial management. Prerequisite: FIN 6428 or equivalent.

FIN 6487 Financial Risk Management - Financial Engineering (FI) (3). A survey of financial instruments used for financial risk management, including forwards, futures, options and swaps. Emphasis is on identification of financial risks and designing optimal risk management program. Prerequisite: FIN 6426 or FIN 6515.

FIN 6515 Securities Analysis (FI) (3). An analysis of securities and the organization and operation of their markets. The determination of the risk reward structure of equity and debt securities and their valuation. Special emphasis on common stocks. Other topics include options, mutual funds and technical analysis. Prerequisite: FIN 6428.

FIN 6525 Portfolio Management (FI) (3). Practical and theoretical problems associated with the techniques of optimal portfolio selection, construction, and revision. The portfolio objectives of individuals, corporations and funds. Measurement of portfolio performance and related empirical evidence. The role of computers in

portfolio management. Prerequisite: FIN 6515.

FIN 6538 Financial Futures and Fixed Income Investments (FI) (3). An examination of the structure, uses, and strategies associated with financial futures markets. Valuation, hedging, speculative activity, and other futures related risk management issues are discussed. The varieties of fixed income securities and their default risk. The valuation of fixed income securities and their use in the investment and risk management. Prerequisite: FIN 6246 or FIN 6515.

FIN 6625 International Bank Management (FI, MA) (3). Management of the international banking function; setting goals and developing strategies, establishing an organizational structure and managing operations. International banking services. Foreign lending, risks, restraints, and portfolio considerations. International banking trends and implications for regulation. Prerequisite: FIN 6428.

FIN 6626 International Bank Lending Policies and Practices (FI, MA) (3). Organization of the lending function and examination of the basic types of international lending: trade financing, loans or placements to foreign banks, loans to governments and official institutions, and loans to businesses. Syndicated bank loans. Documentation and legal considerations in foreign lending. Assessing and managing risk in the international loan portfolio. Prerequisite: FIN 6428.

FIN 6636 International Finance (FI, MA) (3). A comparative study of the institutional characteristics and internal efficiency of developed and underdeveloped capital markets. The relationships between world and capital markets and prospects for integration. The role of multilateral institutions, multinational corporations, states, and the structure of trade in the international short and long term capital flows. The development of financial centers. Prerequisite: FIN 6428 or equivalent.

FIN 6644 Global Financial Strategy (3). Aspects of strategic financial environment and management of firms that operate in a global arena; to include recent developments in financial strategy, international trade and economic decision making. Prerequisite: FIN 6428

FIN 6645 Global Finance for Executives (FI) (3). Deals with the

theoretical and empirical aspects of the financial management of firms that operate in an international business environment. Prerequisite: FIN 6428.

FIN 6656 Latin American Financial Markets and Institutions (3). An evaluative overview of the money and capital markets in Latin America. Topics include review of the most recent literature on regulation and deregulation, globalization, regional markets, privatization, banking innovations, the role of foreign banks, and currency boards in Latin America. Applicable cases will be discussed. Prerequisite: FIN 6428.

FIN 6804 The Theory of Finance (FI) (3). 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: utility theory; capital budgeting; portfolio theory; capital market equilibrium; multi-period valuation; and the cost of capital. Financial decision making is explored under both certainty and uncertainty and within the context of both perfect and imperfect markets. Prerequisite: FIN 6428 or equivalent.

FIN 6906 Independent Study in Finance (FI) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

FIN 6915 Master's Project in Finance (FI) (1-6). An individualized research project and report, which may include field experience with a firm or agency; library research; computer programming; or project development. 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 (FI) (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.

FIN 6xxx International Capital Markets (FI) (3). An exhaustive study of the current institutional aspects of the financial and monetary systems of the developed and emerging markets. Topics will include detailed discussions of capital markets including stock exchanges and the international asset pricing models. Prerequisite: FIN 6428 or permission of the instructor.

FIN 6943 Finance Internship (FI) (1-3). Student placement within a financial institution, business firm or other organization for the purpose of providing practical experience to supplement theoretical classroom instruction. Periodic reports and conferences required. Permission of the instructor and department chairperson.

FIN 7527 Seminar in Investments (FI) (3). Examines analysis and measurement problems of investments. Includes the application of statistical techniques, current theoretical issues and empirical literature. Prerequisite: Permission of the instructor.

FIN 7536 Seminar in Futures Markets (FI) (3). A comprehensive examination of the literature in futures markets. Emphasizes the structure and pricing of futures, and risk-management via hedging and arbitrage. Prerequisite: Permission of the instructor.

FIN 7606 International Corporate Finance (FI) (3). The study of topics of research interest to international financial decisions. Topics include foreign exchange risk, international financial markets, and foreign exchange market efficiency. Prerequisite: Permission of the instructor.

FIN 7807 Seminar in Corporate Finance (FI) (3). Familiarizes students with recent developments in finance theory. Includes such topics as the influence of leverage, uncertainty and the cost of capital, agency theory and related topics. Prerequisite: Permission of the instructor.

FIN 7808 Financial Theory I (FI) (3). This course focuses on the theory of financial decision-making under certainty and risk. Includes investment under uncertainty, capital structure, dividend, asset valuation, and options pricing. Prerequisite: Permission of the instructor.

FIN 7809 Financial Theory II (FI) (3). This course focuses on the theory of financial decision-making under certainty and risk. Includes investment under uncertainty, capital structure, dividend, asset valuation, and options pricing. Prerequisite: Permission of the instructor.

FIN 7810 Financial Theory III (FI) (3). This sequel to Financial Theory I and II focuses in on microfinance. Discusses issues primarily in corporate finance such as effects of taxation, agency theory, and signaling theory.

Prerequisite: Permission of the instructor.

FIN 7811 Seminar in Financial Markets and Institutions (FI) (3). Examines recent developments in economic and financial theories as applied to topics such as the structure of financial markets and the economics of information and financial institutions. **Prerequisite:** Permission of the instructor.

FIN 7812 Seminar in Options and Contingent Claims (FI) (3). An examination of the theories of option valuation and arbitrage pricing, and their applications to security analysis, portfolio management and financial instrument valuation. **Prerequisite:** Permission of the instructor.

FIN 7816 Seminar in Portfolio Theory (FI) (3). Examines investment and portfolio theory, with emphasis on the historical development of the literature in this area and the recent analytical and empirical work. **Prerequisite:** Permission of the instructor.

FIN 7818 Foundations of Financial Models (FI) (3). Introduction to mathematical and economic models underlying the development of modern finance theory. Includes discrete and continuous time models in finance using stochastic calculus. **Prerequisite:** Permission of the instructor.

FIN 7845 Statistical Methods in Finance I (FI) (3). Estimation, and testing of various economic and financial models. Emphasis on econometric techniques to deal with various problems of single-equation models and introduction to simultaneous equation. **Prerequisite:** Instructor's permission.

FIN 7846 Statistical Methods in Finance II (FI) (3). Emphasis on econometric techniques and multivariate statistics as applied in finance. Includes simultaneous equation models, multiple discriminant analysis and factor analysis. **Prerequisite:** Instructor's permission.

FIN 7855 Financial Economics I (FI) (3). An advance doctoral course covering selected advanced topics in Microeconomic foundations and other topics related to business. Emphasis will be on economics of uncertainty, agency problems, information and signaling. **Prerequisite:** ECO 7115 or Permission of the instructor.

FIN 7856 Financial Economics II (FI) (3). An advanced doctoral course

covering selected advanced topics in the theory of macrofinance. Emphasis will be on financial intermediation. **Prerequisite:** ECO 7206 or Permission of the instructor.

FIN 7906 Finance Doctoral Independent Study (3). Supervised research projects determined by professor and student. May involve conferences, supervised reading, and reports. **Prerequisites:** Consent of sponsoring professor and chairperson required. (On demand)

FIN 7916 Finance Doctoral Research Project (3). Intensive research project conducted during the summer following the student's first and second years of coursework. Each student develops his/her own research project under the supervision of a faculty member. **Prerequisite:** Graduate standing. (On demand)

FIN 7936 Finance Doctoral Seminar (3). College colloquium series featuring presenters from various academic disciplines and businesses. **Prerequisite:** (On demand).

FIN 7980 Finance Doctoral Dissertation (3). Original research that is supervised by a faculty committee and defended openly before the university committee. **Prerequisites:** Admission to Candidacy. (On demand)

FIN 7981 Finance Dissertation Preparation (3). Preparatory background research and study to begin development of dissertation proposal. Students should be able to complete proposal by the end of the course. **Prerequisites:** Completion of TIER 1 courses. (On demand)

GEB 7906 Independent Study for Doctoral Students (I-15). Supervised research projects determined by professor and student. May involve conferences, supervised reading, and reports. Consent of sponsoring professor and chairperson required. (on demand)

GEB 7916 Doctoral Research Project in Business (BA) (I-15). Intensive research project conducted during the summer following the student's first and second years of coursework. Each student develops his/her own research project under the supervision of a faculty member. **Prerequisite:** Graduate standing. (on demand)

GEB 7936 Doctoral Seminar in Business Administration (BA) (1). College colloquium series featuring presenters from various academic

disciplines and businesses. (on demand)

GEB 7980 Doctoral Dissertation in Business Administration (BA) (I-15). Original research that is supervised by a faculty committee and defended openly before the university committee. **Prerequisite:** Admission to Candidacy. (on demand)

GEB 7981 Dissertation Preparation (I-10). Preparatory background research and study to begin development of dissertation proposal. Students should be able to complete proposal by the end of the course. **Prerequisite:** Completion of TIER 1 courses. (on demand)

ISM 6045 Current Economic and Social Implications of Information Systems (DS) (3). Effects and implications of socioeconomic factors in the operation of information systems and interdependence with the legal and international business environment. Privacy and fraud; computer system purchase and lease contracts; economics of system design, selection and operation; electronic fund transfers and mail; international considerations. **Prerequisites:** MAN 6830 and MAN 3025.

ISM 6106 Systems Analysis (DS) (3). 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; marshaling resources for achieving system objectives; analyzing the sub-components of the system and their respective objectives; and managing the system. **Prerequisites:** MAN 6830, CGS 3403, and COP 2210.

ISM 6155 Information Systems Development (DS) (3). Concepts and methods used in the analysis and design of MIS. Feasibility study, system flow charting, data requirements analysis, data design, user friendly systems design. Systems design project. **Prerequisite:** MAN 6830.

ISM 6156 Enterprise Information Systems (DS) (3). Introduces concepts of enterprise-wide computing, information architecture, process design, data models, and client/server computing.

ISM 6157 Enterprise System Configuration (DS) (3).

ISM 6158 Enterprise-Wide System Administration (DS) (3). This course will expose students to key aspects

involved in the implementation and operation of the R/3 system and will provide the technical and conceptual foundation necessary for developing appropriate strategies and approaches for implementation and maintenance of an enterprise-wide system.

ISM 6205 Database Management (DS) (3). The course addresses techniques for structuring and managing data in organizations. Discusses data concepts, data modeling, database requirements definition, conceptual, logical, and physical design, data administration, and distributed database management. Prerequisite: MAN 6830.

ISM 6222 Telecommunications Network (DS) (3). This course will focus on providing the student with fundamental understanding of the various concepts involved in modern data communication and networking installations, along with its implications in the design of information systems.

ISM 6225 Global Applications of Information Technology (3). Examines information technology use in the international arena, e.g. for communication within a multinational corporation, or communication with customers, suppliers in another country. Topics include: transborder data flow; global connectivity through Telecommunications; IT transfer across national boundaries, management of IT in multinational corporations; case studies or global IT use. Prerequisite: MAN 6830.

ISM 6305 Information Systems Planning (DS) (3). 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. Prerequisites: MAN 6830 and MAN 3025.

ISM 6357 Computer Administration (DS) (3). The theory and 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.

ISM 6405 Management Support Systems (DS) (3). Concept of decision support is examined in a management decision context. Types of applied decision support and expert systems in business are surveyed. Prerequisite: MAN 6830.

ISM 6423 Knowledge Management (3). This course explores the basic concepts of managing organizational intellectual capital, including appropriate information technologies ranging from Intranets to Artificial Intelligence.

ISM 6455 Microcomputer Applications in Business (DS) (3). Fundamentals and comparison of contemporary microcomputers. Extensive usage of available software for making business decisions. Emphasis on small business applications and cases. Student projects. Prerequisites: Computer programming proficiency, MAN 4504 and CGS 3300 or MAN 6501 and 6830.

ISM 6930 Special Topics in Management Information Systems (DS) (1-6). To study the recent developments in the MIS field not otherwise offered in the curriculum, such as office automation, computer graphics, etc. Prerequisites: Advanced standing and department chairman approval.

ISM 7083 Deterministic Decision Models (DS) (3). This course deals with the optimal decision making and modeling of deterministic systems that originate from real life. These applications, which occur in government, business, engineering, economics, and the natural and social sciences, are largely characterized by the need to allocate limited resources.

ISM 7087 Probabilistic Decision Models (DS) (3). This course deals with the optimal decision making and modeling of probabilistic systems that originate from real life. These applications, which occur in government, business, engineering, economics, and the natural and social sciences, are largely characterized by the need to allocate limited resources.

ISM 7126 Systems Analysis and Design (DS) (3). The process of analyzing information requirements and the design and implementation of software systems. Emphasis on the theoretical foundations of different systems development techniques.

ISM 7152 Seminar on System Implementation (DS) (3). Theory and research on the implementation of

information systems in organizational settings. Theories of technological innovation and political action applied in the design and development of systems within organizations.

ISM 7306 Seminar on Managing Information Resources (DS) (3). Theory and research on the managerial viewpoint on information processing functions within an organization. Relationship of information management to strategic planning and other business functions.

ISM 7345 Organizational Impacts of Information Systems (DS) (3). Analysis of theory and research on the impacts of information systems on human behavior in organizations and upon organizational design.

ISM 7406 Decision Support Systems (DS) (3). Theory and research on the design of decision aids. Integrating models and data with a technological delivery system that supports unstructured problem-solving by executive.

MAN 5524 Advanced Production Management (DS) (3). More advanced methods in master planning, forecasting, capacity management, production activity scheduling/control, MRP and inventory management. This course has a professional orientation similar to the APICS certification guidelines. Prerequisite: MAN 4504 or MAN 6501, or Department Chairperson's approval.

MAN 5930 Seminar in Personnel Management (MA) (3). Overview and examination of the various aspects of the personnel management function.

MAN 6xxx Colloquium in Managing Organizational Ethics (ME) (1). This course introduces students to core concepts and practices of managing ethical issues in business firms. Using cases, readings and speakers from the business community, the course teaches leadership skills and organizational design strategies to resolve ethical business dilemmas in personally, professionally and environmentally responsible ways. Topics covered include: personal values and ethics; creating and maintaining ethical work climates; ethical issues in stakeholder management, ethics in the global business environment, and ethical issues in managing technology and innovation.

MAN 6501 Organization and Management Process (MA) (3). Analysis

of organizations including the evolution of management thought and the effects of technology and the environment on the organization. Emphasis will be on such concepts as division of work, delegation and decentralization, leadership, motivation, work satisfaction; as well as planning, organizing, directing, and controlling.

MAN 6066 Business Ethics (ME) (3). Practical approaches for addressing ethical conflicts in organizational administration. Emphasis will be placed on developing participants' ability to accurately diagnose organizational ethics problems and determine constructive solutions.

MAN 6121 Interpersonal Behavior and Analysis (MA) (3). A human interaction/human relations training laboratory, designed to increase both self-awareness 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 6145 Intuition in Management (MA) (3). Interdisciplinary study of intuition and its applications in management. Apply learnings in a term project. Prepare Intuitive Experience Logs to discover intuition firsthand. Prerequisite: Computer Competency.

MAN 6204 Organization and Management Theory (MA) (3). 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.

MAN 6209 Organization Design and Behavior (MA) (3). Covers how managers interact with organizations to accomplish complex tasks by examining how strategy, structure and systems interact with behavioral variables.

MAN 6245 Organizational Behavior (MA) (3). 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 6265 Group Processes in Organizations (MA) (3). The social and psychological processes of organizational functioning. The roles

played by small groups in organizational settings.

MAN 6295 Conflict in Organizations (MA) (3). A critical examination of the role and impact of interpersonal and intergroup conflict in organizations. Models as approaches to utilizing and resolving conflict toward constructive personal and organization ends will be emphasized.

MAN 6311 Advanced Personnel Management (MA) (3). 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 (MA) (3). Individual differences and their measurement in personnel selection and job placement. Job design and redesign.

MAN 6331 Compensation Administration (MA) (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 (MA) (3). Determining training needs. Training methods. The training staff. Supervisor development. Equal Employment Opportunity management.

MAN 6356 Professional Development Seminar I (1).

MAN 6357 Professional Development Seminar II (1).

MAN 6358 Professional Development Seminar III (1).

MAN 6405 Labor Relations (MA) (3). 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 (MA) (3). An advanced course in labor relations for students with some background who desire more depth than that provided in introductory courses. Topics of contemporary interest, such as public

sector collective negotiations, are treated at length.

MAN 6416 Corporate Negotiations (MA) (3). 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: ACG 6026, MAN 6245, FIN 6428, MAR 6805.

MAN 6446 Negotiations (3). Negotiations are the processes of creating agreements between two or more parties. This course will introduce students to the art of negotiations in business transactions. The class will include a wide variety of negotiation cases.

MAN 6501 Operations Management (DS) (3). This course covers analysis, design, and operations of organizational systems. The systems approach is used to provide a framework or general model of analysis, to which specific concepts, quantitative techniques, and tools can be related. The material presented has application to any organization of people and machines, including hospitals, governmental agencies, service organizations, and industrial concerns. Prerequisite: QMB 6357 or its equivalent.

MAN 6525 Managing for Total Quality (3). Addresses underlying management assumptions, methods, tools, culture and philosophy of total quality management - TQM.

MAN 6529 Seminar in Production Control Systems (DS) (3). The control systems for production operations automation and its impact on organizations. Integrated operational-simulation approach. Group and individual projects.

MAN 6559 Seminar in Management Science (DS) (3). New topics application areas will be explored. Lectures will relate to the latest advances in the theory and application of management science. Prerequisite: Instructor's approval.

MAN 6569 Managerial Decision-Making (DS) (3). 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 6585 Productivity Management Seminar (DS) (3). Analysis of productivity in manufacturing and service organizations and methodology for productivity improvement. Extensive cases, projects, tours, and guests speakers. Prerequisite: Graduate students (or CBA certificate students).

MAN 6601 International Management (MA) (3). This course examines the functions of management in an international context: organization, communication, strategic planning, control, motivation, leadership, and human resource management. The topics include the cultural differences behind different managerial styles and customs.

MAN 6603 Problems in Comparative Management (MA) (3). 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 6606 International Business Environment (ME, MA) (3). 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 6608 International Business (MA) (3). This course examines the environmental variables affecting international operations, trade and investment theories, international institutions, and regional economic groups. It also focuses on international finance, international accounting, international marketing, and international management problems and issues.

MAN 6615 International Labor-Management Relations (MA) (3). Comparative analysis of selected industrial relations systems and impact on multinational firms and international labor movements. Emphasis on empirical models and management-oriented case studies.

MAN 6617 Managing Global Production and Technology (MA) (3). An exploration of the management

of technology and its relationship to the dynamics of globalization of production in both manufacturing and service industries. Prerequisite: MAN 6608.

MAN 6635 International Business Policy (MA) (3). 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. Prerequisites: ACG 6026, MAN 6245, FIN 6428, and MAR 6805 and Man 6603 or Man 6608.

MAN 6675 Special Topics in International Business (MA) (3). For groups of students who wish to study intensively a particular topic, or a limited number of topics, in international business, not offered elsewhere in the curriculum. Prerequisites: Approval of the faculty advisor, Department Chairperson, and Dean.

MAN 6679 Master's Project in International Business (MA) (3). An individual research project on an international business problem, which may include field work (including internship), library research, computer modeling, or the use of an approved research methodology. Prerequisites: Assignment of faculty advisor and permission of Department Chairperson.

MAN 6695 Independent Study in Business (MA) (3). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Assignment of faculty tutor and written permission of Department Chairperson, and Dean.

MAN 6703 Colloquium in Managing Organizational Ethics (1). Management issues, responsibilities, and techniques associated with public and private expectations for ethical performance of large-scale organizations.

MAN 6715 Business Environment and Public Policy (ME) (3). An examination of the economic, political, social and moral context in which management decisions are made. The focus is on the public policy environment of business, whereby community direction is transformed into corporate behavior.

MAN 6726 Strategic Management (MA) (3). The use of cases, guest lectures, and gaming to integrate the analysis and measurement tools, the 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. Should be taken in the last semester of master's program.

MAN 6727 Doing Business in the Marketplace (DS) (3). Give students practical lessons on the emerging world of the marketplace & teach them how to manage and make money there. Show how managing in the marketplace works with managing in the marketplace. Prerequisite: MAN 6830.

MAN 6746 Global Environmental Management (ME) (3). An exploration of the national, regional, and global forces emerging and influencing the management of the business firm's impact on the physical environment. A review existing and developing environmental management theories and control systems for business.

MAN 6805 Entrepreneurship (MA) (3). A discussion of the general theories, principles, concepts and practices of entrepreneurship. Heavy emphasis is placed on lecture, readings, case studies and group projects.

MAN 6830 Organization Information Systems (DS) (3). 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.

MAN 6830L Organization Information Systems Laboratory (DS) (1). Laboratory applications for MAN 6830.

MAN 6908 Independent Study in Business Environment (3). Independent project in the political, economic, social, cultural, ethical, or governmental relations environment of business. Directed study with a business environment faculty member. Prerequisites: MAN 6715, MAN 6606 and Permission of the instructor.

MAN 6910 Research Methods in Management (MA) (3). 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 6911 Research in Systems Development (DS) (3). Conduct 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: ISM 6155.

MAN 6930 Master's Seminar in Management (MA) (1-3). An examination of recent research findings in selected areas of current concern. Emphasis is placed on readings; active discussion; and short, small-term action and research projects. The student may make a preliminary selection of his/her master's thesis or project topic. Prerequisites: Consent of faculty sponsor, Department Chairperson, and Dean.

MAN 6937 Special Topics in Business Environment (3). A review of a contemporary dimension of business' environment in a field of faculty specialization. Prerequisites: MAN 6523, MAN 6606 or equivalent.

MAN 6974 Master's Project in Management (MA) (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 College.

MAN 7146 Leadership I (MA) (3). Course identifies leadership theories and research bearing on modern management practice. Behavioral, situational and transformational theories of leadership are emphasized, compared and evaluated.

MAN 7147 Leadership II (MA) (3). Draws on research and case studies for understanding of adaptive leadership in turbulent, uncertain environments. Emphasis on effective management of innovation, entrepreneurial activity and new ventures.

MAN 7148 Intuition in Management (3). In-depth study of the nature and development of the intuitive process emphasizing its role in management decision making and its relationship to rational problem solving. Prerequisite: Permission of the instructor. Corequisite: MAN 7148L.

MAN 7155 Fundamentals of Behavioral Research (MA) (3). Analytical tools to conduct systematic

research. Methods of data collection in lab, survey and field research. Emphasis on principles of measurement and statistics to interpret/report behavioral data.

MAN 7206 Organizational Analysis (MA) (3). Develops skills in organizational problem-solving through applications of theory and research to actual problems. Emphasis on needs analysis, process consultation, team-building and action research.

MAN 7207 Theories of Organization (MA) (3). Organization functioning from a macro perspective; emphasis on evolution, structure, design and processes of complex systems. Study of communication/information networks, inter-group processes and control strategies.

MAN 7235 Management Philosophy and Strategy (MA) (3). Compares various cross-cultural management philosophies to structure and function of different types of organizations. Emphasis on how to develop and implement a management strategy for maximum productivity in different organizations.

MAN 7275 Organizational Behavior Management (MA) (3). An introduction to the study of human behavior in organizations. Emphasis is given to management of individual and group processes including conflict attitudes, decision making, motivation and stress.

MAN 7305 Human Resource Management (MA) (3). Personnel management topics including personnel selection, performance appraisal, training design, employee development, and compensation administration. Legal and practical issues are emphasized.

MAN 7412 Labor-Management Topics (MA) (3). Presents various aspects of the labor-management relationship to provide a contemporary perspective. Emphasis on structure, processes, strategies and legal issues in collective negotiation and industrial relations.

MAN 7529 Seminar in Operations Management (DS) (3). Concepts, tools and recent research developments in the design, planning and control of operations management systems in business and service organizations. Prerequisite: ISM 7083. Corequisite: ISM 7084.

MAN 7609 Comparative Management (MA) (3). Course focus is cross-

cultural management, i.e., how cultural values influence managerial behavior. The problems of cross-cultural communications, leadership, motivation, and decision making are examined. Prerequisites: Admission to Doctoral program and completion of Doctoral core.

MAN 7616 Multinational Firm Global Strategy (MA) (3). Overview of the strategic management and international business concepts that frame strategic activity in MNCs. Competitive business strategies in global and multidomestic industries. Prerequisite: Completion of business Ph.D. core.

MAN 7620 International Business Operations I (MA) (3). Examination of the functional management, operations and concerns of international businesses. Emphasizes analysis of problems in managing joint ventures, licensing, barter, and technology transfer. Prerequisites: Admission to Doctoral program and completion of doctoral core.

MAN 7621 International Business Operations II (MA) (3). Focus on political, economic, and national security issues which influence IB operations or strategies. Examines techniques for political and economic risk, assessment and reactions to such influences. Prerequisites: Admission to Doctoral program and completion of doctoral core.

MAN 7640 International Business Research Methods (MA) (3). Overview of IB academic research, emphasizing topics, literature, methods, information sources, applications, problems, and journal characteristics. Prerequisites: Admission to business Doctoral program and completion of doctoral core.

MAN 7718 Analysis of Corporate Policy Methods (MA) (3). Links functional areas of management to provide integrated view of organization and public policy. Emphasis on measurement, analysis and conceptualization of organization as a totality of operations.

MAN 7895 Seminar in Management (MA) (3). Key concepts in management ranging from individual worker styles to business ethics. Emphasis on topics such as men and women in organization, decision making styles, and attribution management.

MAN 7910 Advanced Management Research (MA) (3). Covers applications of analytical methods in contemporary management research. Emphasis is given to complex research design strategies including multivariate techniques and multidimensional scaling.

MAR 6075 Current Issues in Marketing I (ME) (3). 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. Prerequisite: MAR 6805.

MAR 6158 International Marketing (ME) (3). This course discusses the nature and scope of international marketing, and explores problems facing multinational firms and other international marketing organizations, together with strategies for foreign market penetration. Prerequisite: MAR 6805.

MAR 6336 Integrated Marketing Communication (ME) (3). A broad introduction to the field of integrated marketing communications and how it fits into the marketing plan. Discussion of objective setting, budgeting, and media planning, as well as the strategic planning and evaluation of advertising media, sales promotion, public relations, direct marketing, personal selling and marketing communications on the internet. Prerequisite: MAR 6805.

MAR 6406 Sales Management (ME) (3). Analysis of personal selling's roles in marketing strategy using detailed case studies on field sales management, working with channel organization, and planning and controlling sales operations. Prerequisite: MAR 6805.

MAR 6506 Consumer Behavior (ME) (3). Modern comprehensive models of consumer behavior are utilized as a framework for understanding consumer decision processes. Prerequisite: MAR 6805.

MAR 6646 Managing Marketing Information (ME) (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. Prerequisite: MAR 6805 or Permission of the instructor.

MAR 6675 Database Marketing (ME) (3). A practical approach to the

use of database information to solve marketing problems. Emphasis is on obtaining, managing and using information about current and potential customers. Topics include data acquisition, data mining, list segmentation and customer modeling, and direct marketing, relationship marketing and customer lifetime value applications.

MAR 6707 Current Issues in Marketing II (ME) (3). Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 6075.

MAR 6805 Marketing Management in the Global Environment (ME) (3). Analysis and application of theory and problem solving for marketing management in the global environment. 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.

MAR 6816 Corporate Simulation (ME) (3). 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. Prerequisite: ACG 6175, FIN 6428 & MAN 6501.

MAR 6819 Marketing Strategy (ME) (3). A study of strategic marketing planning through case analysis and selected readings. Emphasis is on planning and problem solving processes, particularly directing, planning, organizing, coordinating, and controlling as applied to a contemporary market-oriented organization. Prerequisites: MAR 6805 or equivalent.

MAR 6838 Brand Management (ME) (3). The focus of this course is to provide a sound understanding of the function, issues and challenges of the brand or product manager. The scope of the course embraces U.S. and international situations and emphasis will be placed on analysis, strategy development and practical decision making. The course will draw on the students prior exposure to marketing management, research advertising and promotion and will provide insights and practice in application of these skills in the context of the product manager's roll in the enterprise.

MAR 6915 Independent Study in Marketing (ME) (1-6). Individual conferences; supervised reading; reports on personal investigations. Consent of faculty tutor, Department Chairperson and Dean required.

MAR 6936 Special Topics in Marketing (ME) (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.

MAR 6xxx Negotiations (ME) (3). This course introduces students to the art and science of negotiations. The science involves learning about theories and methodologies which have been developed as guides for improving negotiated outcomes, and the art involves building negotiating skills and developing an understanding of one's own negotiating style through a series of realistic negotiations cases. The class will include a wide variety of negotiation cases, from two-person through multi-party and from simple issues of selling prices to multi-issue bargaining situations.

MAR 6xxx (e)Marketing (ME) (3). This course is designed to familiarize students with internet marketing. In particular, the course provides students with an understanding of the theory and practice of marketing on the internet. The course will include a critical evaluation of internet applications appropriate to marketing management. Although both b2b and b2c applications are discussed, the emphasis on one or the other will vary, depending on the instructor.

MAR 7203 Seminar in Channels of Distribution (ME) (3). Covers readings from the marketing, economics, logistics, organizational behavior, social psychology, and sociology literatures in developing a research perspective on channels of distribution.

MAR 7246 Seminar in International Marketing (ME) (3). Examines major topics and theories in the international marketing literature. Analyzes various perspectives on business activities and strategies in global markets.

MAR 7507 Seminar in Consumer Behavior (ME) (3). Covers the major topics and theoretical perspectives in consumer behavior research, with emphasis on consumer decision making.

MAR 7622 Marketing Research Methodology I (ME) (3). Philosophy, concepts, methods of marketing research design. Experimental methods, sampling procedures, measurement techniques, other methodological considerations. Prerequisites: Successful completion of first year research methods requirements in a College of Business Ph.D. Program or Permission of the instructor.

MAR 7623 Seminar in Marketing Environment (ME) (3). Examines the role of marketing professionals in responding to social, economic, political, technological and ecological changes in the business environment. Addresses issues of marketing ethics, social accountability, and the design of responsible marketing strategies.

MAR 7652 Seminar in Advertising and Persuasion (3). Covers the major topics and theoretical perspectives within the research literature addressing persuasive communications.

MAR 7665 Seminar in Marketing Models (3). Examines the process of model building and the assumptions implicit in various modeling decisions. Emphasis is on learning to interpret, classify and critically evaluate models of marketing phenomena. Prerequisites: Calculus, Probability Theory, Statistics, and Matrix Algebra.

MAR 7667 Seminar in Marketing Management (ME) (3). Covers programs of research related to the management of marketing organizations and their role in improving organizational performance. Current and potential research topics will be considered from the perspective of leading scholars and marketing executives.

MAR 7786 Seminar in Marketing Theory (ME) (3). Intensive analysis of the nature and role of hypotheses, generalizations, and empirical regularities. Critical examination of theories of marketing and interaction of marketing theory and practice.

MAR 7815 Seminar in Foundations of Marketing Thought (ME) (3). Foundations of marketing, interdisciplinary relationships; reviews major research areas: the marketing mix, consumer choice models, segmentation, stochastic, and analytical models.

MAR 7845 Seminar in Services Marketing (ME) (3). Analyzes the nexus between services and marketing

management. Identifies and appraises alternative corporate strategies within industries such as banking and finance, insurance, hospitality, entertainment and leisure, health care, and education.

MAR 7875 Sectorial Marketing (ME) (3). Course includes retailing, wholesaling, pricing, distribution, advertising, sales promotion and management, personal selling, international services and macromarketing; and marketing and economic development.

MAR 7979 Doctoral Research in Marketing (ME) (1-6). Research while enrolled for a doctoral degree under the direction of faculty members. Prerequisite: Permission of Department.

QMB 6357C Business Analysis for Decision Making (3). Review of the relevant quantitative techniques required for business analysis and decision making, including decision models, mathematical programming, statistics and forecasting. This is a WebCT and Excel based course. Prerequisites: College Algebra, computer literacy and working knowledge of Excel.

QMB 6603 Quantitative Methods in Management (DS) (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. Prerequisites: College Algebra and completion of the Computer Programming Proficiency requirement.

QMB 6805 Deterministic Models for Management Analysis (DS) (3). 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 (DS) (3). 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. Prerequisites: MAN 6569 and a Computer Programming Language.

QMB 6855 Stochastic Models for Management Analysis (DS) (3). Applications of probabilistic models (such as queuing, inventory, and renewal) to their managerial problems.

QMB 6875 Stochastic Models for Project Management (DS) (3). Review of deterministic models and principles. Introduction to GERT, critical path methods, criticality index, and resource considerations in stochastic networks. Emphasis on operational decision-making, advanced topics, and individual projects. Students use the computer, and existing programs, to analyze hypothetical project networks, and learn to interpret the results in order to facilitate operational decisions. (F)

QMB 6905 Independent Study in Decision Sciences (DS) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of instructor, Department Chairperson and Dean required. P/F only.

QMB 6934 Seminar in Decision Sciences (DS) (1-3). An examination of recent research findings in selected areas of current concern. Emphasis is placed on readings; active discussion; and small, short-term action and research projects. Consent of instructor required.

QMB 6974 Project in Decision Sciences (DS) (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 College and approved by the Department Chairperson.

QMB 7935 Seminar in Decision Sciences (DS) (3). Critical review and analysis of recent and important research developments in the area of decision sciences. Prerequisites: ISM 7083 and ISM 7087.

TAX 5066 Tax Research and Reporting (AC) (3). A study of tax planning aspects of a variety of business and other transactions. Emphasis will be placed upon perceiving tax issues and conducting research to resolve them. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5106 Corporate Taxation (AC) (3). Tax implication of corporate formations, distributions, redemptions, liquidations, divisions, reorganizations, collapsibles, attributes, consolidations, S-Corp, AET and PHC's. Prerequisites:

Permission of Accounting certificate program advisor.

TAX 5405 Taxation of Estate and Gift (3). The study of the federal estate tax and federal gift tax provisions. Prerequisites: Permission of Accounting Certificate program advisor.

TAX 5406 Taxation of Estates and Trusts (AC) (3). Study of income tax aspects of decedents, followed by income taxation of estates and trusts (subchapter J). Special emphasis on throw-back rules, grantor trusts, charitable remainder trusts, and foreign trusts. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5506 International Dimensions of Taxation (AC) (3). Tax provisions affecting foreign corporations and non-resident aliens, as well as those tax provisions affecting U.S. person's business and investment activities outside the U.S. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5725 Tax Planning for Managers (AC) (3). An exploration of the concepts of federal income taxation and tax planning, from the point of view of the manager. Prerequisites: ACG 6308 and permission of accounting certificate program advisor.

TAX 5875 Seminar in Taxation (AC) (3). An in-depth study of recent legislative, administrative, and judicial developments in taxation. Prerequisites: TAX 4001 or equivalent, and permission of Accounting certificate program advisor.

TAX 5904 Independent Study in Taxation (AC) (3). Individual conferences, supervised readings, reports on personal investigations. Prerequisite: Written Permission of the instructor, Accounting certificate program advisor, School director, and dean.

TAX 5936 Special Topics in Taxation (AC) (3). Intensive study for groups of students of a particular topic or topics not otherwise offered in the curriculum. Prerequisite: Written permission instructor, Accounting certificate program advisor, School director, and dean.

TAX 6005 Income Tax (AC) (3). A survey of federal income taxation, with emphasis on the taxation of individuals and corporations and the ethics of income tax accounting. Prerequisites: ACG 6115 and admission to a graduate

program in the School of Accounting or permission of the School Director. Not open to those with undergraduate accounting degrees.

TAX 6015 Taxation of Corporations and Partnerships (AC) (3). An in-depth study of income taxation of corporations and partnerships, including tax planning. Prerequisite: TAX 4001 or equivalent with a grade of 'C' or higher and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6065 Tax Research (AC) (3). An in-depth study and application of both traditional and computer-assisted tax research tools and of relevant practice and procedural mechanisms affecting taxation. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6105 Taxation of Corporations I (AC) (3). The study of federal tax consequences of the formation and operation of corporations; distributions and redemptions; elections of Subchapter S status. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6115 Taxation of Corporations II (AC) (3). The study of federal tax consequences of the liquidation and reorganization of corporations; multiple corporations; advanced topics in corporate taxation. Prerequisites: TAX 6105 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6205 Partnership Taxation (AC) (3). The intensive study of the formation, operation, and dissolution of partnerships (general and limited). Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6405 Estate and Gift Taxation (AC) (3). The study of the federal estate tax and federal gift tax provisions. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6415 Fiduciary Accounting and Taxation (AC) (3). 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: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6445 Estate Planning (AC) (3). 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. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6505 International Taxation I (AC) (3). Federal income tax provisions applicable to non-resident aliens and foreign corporations. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6515 International Taxation II (AC) (3). Federal income tax provisions applicable to U.S. persons, business, and investment activities outside the U.S. Prerequisite: TAX 6505 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6726 Tax Planning for Managers (AC) (3). An exploration of the concepts of federal income taxation and tax planning, from the point of view of the manager. Prerequisites: ACG 6026 or equivalent and permission of Accounting advisor. Not open to M.S.T. or M.Acc. students.

TAX 6805 Tax Policy (AC) (3). A study of the tax accounting concepts and the judicial doctrines inherent in the federal tax law, tax planning, and tax policy. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6835 Taxation of Deferred Compensation (AC) (3). The taxation of qualified and non-qualified pension and profit-sharing plans, stock options, annuities, lump-sum distributions, death benefits, rollovers, self-employment plans, employee stock ownership plans, etc. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6875 Current Developments in Taxation (AC) (3). The study of recent legislative, administrative and judicial developments in taxation. Prerequisite:

isites: At least four additional graduate tax courses and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6876 Transactions in Property (AC) (3). 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. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6877 Seminar in Taxation (AC) (3). 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: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6905 Independent Study in Taxation (AC) (1-3). Individual conferences, supervised readings; reports on personal investigations. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6935 Special Topics in Taxation (AC) (1-3). Intensive study for groups of students of a particular topic(s) not otherwise offered in the curriculum. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 7067 Seminar: Special Topics in Taxation Research (AC) (3). Topics vary according to instructor and student interest in problems and issues on the frontier issues of taxation. Prerequisite: Permission of Doctoral advisor in Accounting.

TAX 7815 Seminar: Tax Policy: An Analysis of the Issues (AC) (3). An in-depth examination of the horizontal and vertical equity issues in taxation, the effects on income distribution, business decisions, foreign balance of payments, public finance issues, and economic policy. Emphasized are the areas of empirical research vis a vis legal research. Prerequisite: Permission of Doctoral advisor in Accounting.

TRA 5245 Transportation Logistics (ME) (3). Quantitative methods applied to solving problems in business logistics; mathematical and statistical models; optionalization theory and simulation. Problems selected from areas of physical distribution management, inventory control, mode selection, and facility locations.

TRA 5401 Transportation Operations and Carrier Management (ME) (3). 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 6015 Graduate Survey of Transportation Management (ME) (3). Graduate survey of transportation, its elements, and their impact on society. History, economics, and regulatory principles in transportation. Current policies and problems for all the major transportation modes.

TRA 6905 Independent Study in Transportation (ME) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson, and Dean required.

TRA 6936 Special Topics in Transportation (ME) (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.

College of Business Administration

Dean Joyce J. Elam

Associate Dean,

Finance and

Administration

Donald W. Fair

Inerim Associate Dean,

Undergraduate

and Professional

Programs

Clifford Perry

Assistant Dean,

Undergraduate

Advising

Lynda Raheem

Assistant Dean, Marketing

Communication and

Publications

Sally M. Gallion

Director, School of

Accounting

Dana Forgiione

Department Chairs:

Decision Sciences

and Information

Systems

Christos Koulamas

Finance

Emmanuel Roussakis

Management and

International

Business

Karl O. Magnusen

Marketing

J.A.F. Nicholls

Faculty

Anderson, Gary, Ph.D. (University of

Illinois), Associate Professor,

Finance

Auster, Rolf, Ph.D. (Northwestern

University), CPA, CMA, Professor,

Accounting

Barber, Joel, Ph.D. (University of

Arizona), Associate Professor,

Finance.

Bates, Constance S., D.B.A. (Indiana

University), Associate Professor,

Management and International

Business and Barsky-Greenstein

Professor

Batra, Dinesh, Ph.D. (Indiana

University), Associate Professor,

Decision Sciences and Information

Systems.

Bear, Robert M., Ph.D. (University

of Iowa), Professor, Finance

Becerra-Fernandez, Irma, Ph.D.

(Florida International University),

Assistant Professor, Decision

Sciences and Information Systems

Berry, Delano H., Ph.D. (University

of Kentucky), CMA, Lecturer,

Accounting

Beste, Steve, M.B.A. (Florida

International University), Director,

Executive M.B.A. Program

Bierwag, Gerald O., Ph.D.

(Northwestern University), Ryder

System Professor of Business

Administration, Finance

Blockson, Laquita, Ph.D. (University

of Pittsburgh), Assistant Professor,

Management and International

Business

Bonham-Yeamon, Doria, J.D.

(University of Tennessee), Associate

Professor, Accounting

Browner, Ellie, M.Ed. (Florida

International University), Director,

Evening MBA Program

Chang, Chun-Hao, Ph.D.

(Northwestern University), Associate

Professor, Finance

Cohen, Deborah V., Ph.D. (Columbia

University), Associate Professor,

Management and International

Business

Corrales, Maria, M.B.A. (Florida

International University), Instructor,

Counselor, Advisor Management

and International Business

Daigler, Robert T., Ph.D. (University

of Oklahoma), Associate Professor,

Finance

Dandapani, Krishnan, Ph.D.

(Pennsylvania State University),

Professor, Finance

Daniels, Vincent, M.B.A.

(Thunderbird University), Director,

International MBA Program

Davidson, Lewis F., Ph.D.

(Pennsylvania State University),

Professor, Accounting

de Boyrie, Maria, Ph.D. (Florida

International University), Assistant

Professor, Finance

Dessler, Gary, Ph.D. (City University

of New York), Professor,

Management and International

Business

Dickson, Peter R., Ph.D. (University

of Florida), Professor and Knight

Ridder Eminent Scholar, Marketing

Dieguez, Manuel, M.S.M. (Florida

International University), CPA,

Instructor, Accounting

Dorsett, Herman W., Ed.D.

(Columbia University), Associate

Professor, Management and

International Business

Elam, Joyce J., Ph.D. (University of

Texas-Austin), Professor, Decision

Sciences and Information Systems,

James L. Knight Eminent Scholar,

and Dean

Fair, Donald W., M.Acc. (Bowling

Green State University), CPA,

Instructor, Accounting, and

Associate Dean

Farrow, Dana, Ph.D. (University of

Rochester), Professor, Management

and International Business

Forgione, Dana, Ph.D. (University of

Maryland), Professor and Director,

School of Accounting

Friday, Earnest, Ph.D. (University of

Miami), Assistant Professor,

Management and International

Business

Gallion, Sally M., Ph.D. (University of

Missouri), Assistant Dean, Marketing

Garcia, Georgina, M.S.M. (Florida

International University), CPA,

Instructor, Accounting

Gilbert, G. Ronald, Ph.D. (University

of Southern California), Associate

Professor, Management and

International Business

Gomez, Carolina, Ph.D. (University of

North Carolina), Assistant

Professor, Management and

International Business

Goodrich, Jonathan N., Ph.D. (State

University of New York at Buffalo),

Professor, Marketing

Gray, Delano, M.S., (New York

University), Instructor, Accounting

Greenberg, Barnett A., D.B.A.

(University of Colorado), Professor,

Marketing

Gupta, Sushil K., Ph.D. (University of

Delhi), Professor, Decision Sciences

and Information Systems

Hallbauer, Rosalie C., Ph.D.

(University of Florida), CPA, CMA,

Associate Professor, Accounting

Hamid, Shahid, Ph.D. (University of

Maryland), Associate Professor,

Finance and Director, M.S.F.

Program

Harris, Judy, Ph.D. (University of

Houston), Assistant Professor,

Marketing and Burdines Professor

of Retailing

Henry, Kenneth, M. Acc. (Florida

International University), Visiting

Lecturer, Accounting

Hodgetts, Richard M., Ph.D.

(University of Oklahoma), SunTrust

Professor, Management and

International Business

Hogner, Robert H., Ph.D. (University

of Pittsburgh), Associate Professor,

Management and International

Business

Keys, James D., M.B.A. MSF

(Florida International University),

Instructor and Associate Director,

M.S.F. Program, Finance

King, Joseph T., M.B.A. (Barry

University), Lecturer and Assistant

Provost, Decision Sciences and

Information Systems

Klonarides, Gerard, Ph.D. (Laverne

University), Visiting Instructor,

Decision Sciences and Information

Systems

Koulamas, Christos P., Ph.D. (Texas

Tech University), Professor and

Chair, Decision Sciences and

Information Systems

- Kozloski, Laura, Ph.D.** (*University of Miami*), Lecturer, Management and International Business
- Kranendonk, Carl J., M.B.A.** (*University of Tulsa*), Instructor, Marketing
- Kroeck, K. Galen, Ph.D.** (*University of Akron*), Professor, Management and International Business
- Kumar, Kuldeep, Ph.D.** (*McMaster University, Hamilton, Canada*), Professor and Ryder Eminent Scholar, Decision Sciences and Information Systems
- Kyparisis, George J., D.Sc.** (*George Washington University*), Professor, Decision Sciences and Information Systems
- Lassar, Walfried, Ph.D.** (*University of Southern California*), Associate Professor, Marketing
- Lavin, David, Ph.D.** (*University of Illinois*), CPA, Associate Professor, Accounting
- Lee, Chih-Chen, Ph.D.** (*Southern Illinois University*), Assistant Professor, Accounting
- Levy, Yair, M.B.A.**, (*Florida International University*) Instructor and Online Learning Project Manager, Decision Sciences and Information Systems
- Li, Tiger, Ph.D.** (*Michigan State University*), Associate Professor, Marketing
- Long, Cherie, Ph.D.** (*University of Texas-Austin*), Assistant Professor, Decision Sciences and Information Systems
- Lubell, Myron, D.B.A.** (*University of Maryland*), CPA, Associate Professor, Accounting and Director, E.M.S.T. Program
- Luytjes, Jan B., Ph.D.** (*University of Pennsylvania*), Professor, Management and International Business
- Magnusen, Karl O., Ph.D.** (*University of Wisconsin*), Professor, Management and International Business
- Maidique, Modesto A., Ph.D.** (*Massachusetts Institute of Technology*), Professor, Management and International Business, and University President
- Mandakovic, Tomislav, Ph.D.** (*University of Pittsburgh*), Professor, Decision Sciences and Information Systems
- Manheimer, Peter, J.D.** (*University of Miami*), Lecturer, Accounting
- Martin, J. Randall, M.A.** (*University of Miami*), Lecturer, Management and International Business
- McCosh, Andrew, D.B.A.** (*Harvard University*), Chapman Eminent Scholar in Management and Ethics, Management and International Business
- Miniard, Paul, Ph.D.** (*University of Florida*), BMI Professor of Marketing, Marketing
- Mintchev, Ligia M.S.** (*European University*), Instructor, Decision Sciences and Information Systems
- Moncarz, Raul, Ph.D.** (*Florida State University*), Professor, Finance and Vice Provost, Academic Affairs
- Moss, Sherry, Ph.D.** (*Florida State University*), Associate Professor, Management and International Business and Faculty Coordinator, Executive M.B.A. Program
- Most, Kenneth S., Ph.D.** (*University of Florida*), CPA, F.C.A., Professor Emeritus, Accounting
- Munro, Michael S., M.B.A.** (*Stanford University*), Instructor, Marketing
- Murphy, Kenneth E., Ph.D.** (*Carnegie Mellon University*), Assistant Professor, Decision Sciences and Information Systems
- Newman, Charles, Ph.D.** (*Pace University*), Coordinator, E-Business Initiatives
- Nicholls, J.A.F., D.B.A.** (*Indiana University*), Professor and Chair, Marketing
- Noguera, Jose, Ph.D.** (*Louisiana State University*), Assistant Professor, Decision Sciences and Information Systems
- Oliva, Robert R., Ph.D.** (*Florida International University*) CPA, Professor, Accounting
- Oliveira, Manoel, Ph.D.** (*Florida International University*), Instructor, and Director of Technology, Decision Sciences and Information Systems
- Ortiz, Marta, Ph.D.** (*University of Miami*), Associate Professor, Marketing
- Pak, Simon, Ph.D.** (*University of California-Berkeley*), Associate Professor, Finance and Associate Director, Center for Banking and Financial Institutions and Jerome Bain Real Estate Institute
- Parhizgari, Ali, M. Ph.D.** (*University of Maryland*), Professor, Finance
- Paul, Karen, Ph.D.** (*Emory University*), Professor, Management and International Business
- Perry, Clifford, Ph.D.** (*Purdue University*), Visiting Distinguished Executive Professor, and Research Fellow, Knight-Ridder Center Management and International Business
- Business*
- Polster, Eleanor, M.B.A.** (*Florida International University*), Graduate Advisor, Management and International Business
- Pomeranz, Felix, Ph.D.** (*University of Birmingham, England*), CPA, CSP, CFE, Professor and Associate Director, Accounting, and Director, Center for Accounting, Auditing, and Tax Studies
- Prakash, Arun, Ph.D.** (*University of Oregon*), Professor, Finance
- Racca, Kristie, B.S.** (*Florida International University*), Counselor and Advisor
- Raheem, Lynda, M.B.A.** (*University of Miami*), Instructor, Marketing, and Assistant Dean
- Rodriguez, Leonardo, D.B.A.** (*Florida State University*), Professor, Accounting, and Management and International Business
- Roomes, Donald, M.B.A.** (*Florida International University*), Instructor, Management and International Business and Director, Weekend BBA
- Root, H. Paul, Ph.D.** (*Purdue University*), James K. Batten Eminent Scholar and Lecturer and Director, Knight Ridder Center for Excellence in Management, Marketing
- Rose-Green, Ena, Ph.D.** (*Florida State University*), CPA, Assistant Professor, Accounting
- Roslow, Sydney, Ph.D.** (*New York University*), Professor Emeritus, Marketing
- Roussakis, Emmanuel, Ph.D.** (*Catholic University of Louvain, Belgium*), FIBA Professor of Finance, Director of Certificate Programs in Banking, and Chair, Finance
- Scott, Clifton, M.B.A.** (*Farleigh Dickinson*), Instructor, Decision Sciences and Information Systems
- Seaton, Bruce, Ph.D.** (*Washington University*), Associate Professor, Marketing and Business Environment
- Shepherd, Philip, Ph.D.** (*Vanderbilt University*), Associate Professor, Management and International Business
- Silverblatt, Ronnie, Ph.D.** (*Georgia State University*), Associate Professor, Management and International Business
- Sirpal, Rajeshwar, Ph.D.** (*University of Florida*), Instructor, Finance
- Smith, Larry A., Ph.D.** (*State University of New York at Buffalo*), Associate Professor, Decision

- Sciences and Information Systems*
Surysekar, Krishnamurphy, Ph.D. (University of Maryland), Assistant Professor, Accounting
- Sutija, George, M.B.A.** (Columbia University), Associate Professor, Management and International Business
- Taylor, Kimberly, Ph.D.** (University of Pennsylvania), Associate Professor, Marketing
- Truex, Duane, Ph.D.** (State University of New York-Binghamton), Assistant Professor, Decision Sciences and Information Systems
- Tsalikis, John, Ph.D.** (University of Mississippi), Associate Professor, Marketing
- Valenzi, Enzo R., Ph.D.** (Bowling Green State University), Professor, Management and International Business
- Van Fenema, Paul, M.S.** (Utrecht University), Visiting Instructor, Decision Sciences and Information Systems
- Von Glinow, Mary Ann, Ph.D.** (The Ohio State University), Professor, Management and International Business and Director, CIBER
- Wang, Tei-Wei, M.S.** (University of Missouri), Visiting Lecturer, Decision Sciences and Information Systems
- Wass, Lauren, B.S.** (Florida International University), Counselor and Advisor
- Welch, William W., Ph.D.** (University of Michigan), Associate Professor, Finance
- Wheatley, Clark, Ph.D.** (Virginia Polytechnic Institute), CPA, Associate Professor, Accounting
- Wishart, Nicole, M.B.A.** (University of Miami), Instructor, Decision Sciences and Information Systems
- Wrieden, John A., J.D.** (George Mason University), Senior Lecturer, Accounting
- Zanakis, Steve H., Ph.D.** (Pennsylvania State University), Professor, Decision Sciences and Information Systems
- Zdanowicz, John S., Ph.D.** (Michigan State University), Professor and Director, Center for Banking and Financial Institutions and Director, Jerome Bain Real Estate Institute
- Zegan, Peter J., M.S.** (University of Florida), Instructor, Decision Sciences and Information Systems

College of Education

College of Education

The College of Education exists in an urban, multicultural setting and has a three-part mission. The first is to prepare professionals who have the abilities and dispositions to facilitate and enhance learning and development within diverse settings. The second is the discovery and dissemination of the knowledge related to learning, teaching, and development. The third is the development of professional partnerships to promote meaningful educational, social, economic and political change. Our mission supports:

- Curricula that reflect sound theory and best practice.
- Qualified and diverse students and graduates.
- Qualified and diverse faculty active in teaching, research and service.
- Effective governance and organizational structure within an environment of open communication among faculty, administrators, staff, students and community.
- Collaborative and mutually beneficial partnerships with schools and other organizations.
- Visibility at local, state, national and international levels.
- Continuous improvement of the College.

The College offers instructional programs at the undergraduate and graduate levels, engages in research and program development activities, and provides field services to the educational community. The conceptual framework guiding education curricula and programs in the College is grounded in four core concepts that are central to the vision faculty have of professional educators graduating from the College's programs: intercultural, interconnectedness, inquiry, and instructional leadership.

The College, housed in the Sanford and Dolores Ziff Education Building (ZEB) at Florida International University—University Park, is fully accredited by the National Council for the Accreditation of Teacher Education, the Florida Department of Education, and the Florida Board of Regents.

To support its mission, the College is organized into six separate but related departments:

- ◆ Educational Foundations and

Professional Studies

- ◆ Educational Leadership and Policy Studies
- ◆ Educational Psychology and Special Education
- ◆ Elementary Education
- ◆ Health, Physical Education, and Recreation
- ◆ Subject Specializations

Applicants to the College's programs should carefully examine the choices of major concentrations and program objectives. Because there are occasional revisions to the College of Education's curriculum during the academic year, some curriculum changes may not be reflected in the current catalog. Prospective students are advised to contact appropriate advisors to ask for current information regarding specific programs of interest.

General advisement is available by telephone: (305) 348-2768 for University Park, (305) 919-5820 for Biscayne Bay Campus. Broward residents may call (954) 355-5622 for Biscayne Bay Campus or for the Broward Program. Dade residents may call (305) 760-5622 for the Broward Program. Additional information is available on the FIU website at www.fiu.edu. Specific program advisement is available by prearranged personal appointment with advisors at all locations.

Note: The programs, policies, requirements, and regulations listed 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 may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

All stated admission requirements are to be assumed minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that the requirements have been met.

It is recommended that students meet with their advisors throughout the program to assure adequate progress.

Masters, Specialist, and Doctoral Degrees

Graduate studies offered by the College provide specialization in degree programs developed to reflect individual student interests. A graduate program may include courses, seminars, field experiences, research courses, theses, and dissertations, depending upon the student's level and area of emphasis.

Master of Science Degree Programs

Master of Science degree programs are offered in the following specialties:

- Adult Education
- Art Education
- Counselor Education
- School Counseling
- Mental Health Counseling Track
- Early Childhood Education
- Educational Leadership
- Elementary Education
- English Education
- Health Education:
 - Exercise Physiology Track
 - Health Occupations Education
 - Home Economics Education (Family and Consumer Sciences Education)
 - Human Resource Development
 - International Intercultural Development Education
 - Mathematics Education
 - Modern Language Education
 - French
 - Spanish
 - Music Education (see College of Arts & Science, School of Music)
 - Parks and Recreation Management
 - Recreational Therapy Track
 - Physical Education
 - Sports Management Track
 - Reading Education
 - Science Education: Biology, Chemistry, and Physics
 - Social Studies Education
 - Special Education
 - Varying Exceptionalities Track
 - Teaching English to Speakers of Other Languages (TESOL)
 - Technology Education
 - Urban Education
 - Instruction in Urban Settings
 - Multicultural: Bilingual Education
 - Multicultural: TESOL Learning Technologies
 - Vocational Home Economics Education
 - Vocational Education

Administration and Supervision Track

Vocational Industrial Education

Applicants for admission to most Master's programs in Education must hold or qualify for Florida teacher certification in the appropriate area (see specific program area in this catalog for details). All applicants must also satisfy Board of Regents admission requirements: A GPA of 3.0 in the last 60 semester hours of upper division undergraduate study or 1000 (total of verbal and quantitative) on the Graduate Record Examination (GRE). Applicants admitted with a pending GRE score must submit a test score within one semester to be fully admitted. All applicants, regardless of GPA, must submit a GRE score.

Specific programs may have higher standards for admission. Having a minimum GPA and/or GRE score does not assure admission to a program. Admission is subject to the approval of program faculty.

Prior to formal admission to a graduate program, students may be approved to enroll in up to 12 semester hours of 5000 level graduate credit as non-degree seeking students, which, if applicable to the major field of study and approved by an advisor, may be applied to the degree program.

Graduate students will complete at least 30 semester hours of study beyond the bachelor's degree to earn a Master of Science degree in education. However, specific programs may require more than the minimum number of hours. Students may transfer a maximum 6 semester hours taken at another accredited college or university toward a master's degree program having 30-45 semester hours, and a maximum 9 semester hours toward a program having more than 45 semester hours with advisor's approval.

Master's program students must maintain an overall GPA of 3.0 in order to graduate. No more than two grades of 'C' and no grades of 'C-' or less received in courses that are part of a master's degree program of study will be accepted toward graduation.

No more than one workshop course may be included in a master's degree program.

Alternate Masters Degree Tracks

Applicants who hold a bachelor's degree in a field other than education and wish to teach may want to pursue an Alternate Masters Program. This degree leads to State of Florida teacher

certification plus a master's degree for the following programs:

- Art Education
- English Education
- Mathematics Education
- Modern Language Education
- Music Education
- Science Education
- Social Studies Education
- Varying Exceptionalities

Educational Specialist Degree Programs

Education Specialist degree programs are offered in the following specialties:

- Curriculum and Instruction: Instructional Leadership
- Educational Leadership
- School Psychology

The programs require a minimum of 36 semester hours of course work at the University beyond the Master's degree. However, specific programs may require more than the minimum number of hours and may include six semester hours of thesis if that option is chosen.

Admission requirements and transfer of credit are the same as for the master's programs.

Doctor of Education Degree Programs

- Adult Education and Human Resource Development
- Curriculum and Instruction
- Educational Administration and Supervision
- Exceptional Student Education
- Higher Education

Doctor of Education Degree Program Specialties

Doctor of Education degree programs are offered in the following specialties:

- ♦ Adult Education and Human, Resource Development
 - Vocational and Technical Education Leadership Track
 - International and Intercultural Development Education Specialization
- ♦ Curriculum and Instruction
 - Art Education Specialization
 - Early Childhood Education Specialization
 - Elementary Education Specialization
 - English Education Specialization
 - Instructional Leadership Specialization
 - International and Intercultural Development Education Specialization

Modern Language Education Specialization
 Mathematics Education Specialization
 Reading Education Specialization
 Science Education Specialization
 Social Studies Education Specialization
 Teaching English to Speakers of Other Languages (TESOL)

- ♦ Educational Administration and Supervision
- ♦ Exceptional Student Education
- ♦ Higher Education Administration Instruction

Advisement for these programs may be obtained by calling the appropriate department office or by contacting the Office of Advanced Graduate Studies at (305) 348-6335. Detailed admission requirements, program descriptions, and graduation requirements may be obtained from doctoral program advisors in specific areas and by examining program descriptions in this catalog.

Fingerprint Requirement

State of Florida Teacher Certification, in addition to other criteria, requires all applicants to be fingerprinted and checked by the FBI. Some school districts also require a fingerprint check for student interns and/or student teachers. Students with a history of felony arrests may wish to consider this carefully, and seek advice from an advisor before applying to programs in the College.

Elementary Education

Lynne D. Miller, *Associate Professor,*

*Literacy Education and
Chairperson, Elementary
Education*

Cengiz Alacaci, *Assistant Professor,*
Mathematics Education

Maria A. Bilbao, *Assistant Dean*

Lisa Challenger, *Visiting Instructor,*
Early Childhood Education

Joyce C. Fine, *Associate Professor,*
Literacy Education

Rebecca P. Harlin, *Associate
Professor, Early Childhood,
Elementary Education*

Lisbeth Dixon-Krauss, *Associate
Professor, Literacy Education*

Sharon W. Kossack, *Professor,
Literacy Education*

Scott P. Lewis, *Assistant Professor,
Science and Elementary Education*

Nancy Marshall, *Associate Professor,
Literacy Education*

Alicia Mendoza, *Associate Professor,
Early Childhood, Elementary
Education*

George E. O'Brien, *Associate
Professor, Science Education*

William M. Ritz, *Instructor, Art
Education*

Cesar Rossatto, *Assistant Professor,
Social Studies Education*

General Information

The department of Elementary Education is committed to service to the community and the extension of knowledge through research. The department's programs include:

Master of Science in:

Early Childhood Education
Elementary Education
Reading Education

Doctor of Education specialties in Curriculum and Instruction degree:

Early Childhood Education
Elementary Education
Reading Education

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

It is recommended that students meet with an advisor throughout the program.

Master of Science in Early Childhood Education

Applicants for admission to the Master's program in Early Childhood Education must hold or qualify for Florida certification or equivalent in elementary, special or early childhood education (including practical teaching experience requirement), and must satisfy requirements for scholastic aptitude as determined by the graduate admissions standards: GPA of 3.0 or 1000 (sum of verbal and quantitative) on GRE. Applicants must submit GRE scores.

Degree Hours: (36)

Required Sequence of Courses:

Year 1 Fall

EEC 6261	Education Programs for Younger Children	3
EDF 6608	Social Philosophical and Historical Foundations of Education	3

Spring

LAE 5415	Children's Literature	3
EDP 6211	Psychological Foundations of Education	3

Summer

LAE 6305	Instruction in Early Childhood Language Arts	3
EDG 5481	Analysis and Application of Educational Research	3

Year 2 Fall

RED 6305	Instruction in Early Childhood Reading	3
SCE 6306	Instruction in Early Childhood Science	3

Spring

MAE 6305	Instruction in Early Childhood Mathematics	3
EEC 6xxx	Arts and Technology in Early Childhood Education	3

Summer

SSE 6305	Instruction in Early Childhood Social Studies	3
EEC 6678	Research in Early Childhood Education	3

Entry to Program: Fall Semester – Students are encouraged to meet all admission requirements prior to beginning the program, however students may take a maximum of twelve (12) semester hours of course work applicable to the program prior to admission.

Block Progression: Students should take courses in the sequence shown above.

Graduation Requirements: Students must have a 3.0 GPA to graduate from the program. No more than two grades of "C"

are permitted. Grades of "C-" or below will not be counted towards meeting program requirements.

Thesis Option: Students may opt to extend the MS program (3 to 6 additional thesis credit hours) by request.

Master of Science in Elementary Education

Applicants for admission to the Master's program in Elementary Education must: hold or qualify for Florida certification or equivalent in elementary education (including practical teaching experience requirement), and satisfy requirements for scholastic aptitude as determined by the graduate admissions standards: GPA of 3.0 or 1000 (sum of verbal and quantitative) on GRE. The applicants must submit GRE scores.

Degree Hours: (36)

Required Sequence of Courses:

Year 1 Fall

EDE 6205	Curriculum Design for Childhood Education	3
EDF 6608	Social and Philosophical Foundations of Education	3

Spring

RED 6314	Instruction in Elementary Literacy	3
EDP 6211	Psychological Foundations of Education	3

Summer

LAE 5415	Children's Literature	3
EDF 5481	Analysis and Application of Educational Research	3

Year 2 Fall

RED 6336	Reading in the Content Areas	3
MAE 6318	Instruction in Elementary Mathematics	3

Spring

SCE 6315	Instruction in Elementary Science	3
SSE 6355	Instruction in Elementary Social Studies	3

Summer

ARE 6315	Instruction in Elementary Art	3
EDE 6488	Research in Elementary Education	3

Entry to Program: Fall Semester – Students are encouraged to meet all admission requirements prior to beginning the program, however students may take a maximum of twelve (12) semester hours of course work applicable to the program prior to admission.

Block Progression: Students should take courses in the sequence shown above.

Graduation Requirements: Students must have a 3.0 GPA to graduate from the program. No more than two grades of "C" are permitted. Grades of "C-" or below will not be counted towards meeting program requirements.

Thesis Option: Students may opt to extend the MS program (3 to 6 additional thesis credit hours) by request.

Master of Science in Reading Education

The Master of Science in Reading Education develops competencies in diagnosis and remediation, teaching of reading K to 12, and administration and supervision of remedial, corrective, developmental, and content area reading programs. The graduate is competent to take leadership in improving reading instruction and preventing reading failure in schools or in clinics.

Requirements for admission to the Master's program in Reading Education are completion of an appropriate undergraduate teacher education program, satisfactory scholastic aptitude, as determined by the graduate admission standards a GPA 3.0 or 1000 (sum of verbal and quantitative) on the GRE; applicants are required to submit GRE scores.

This master's track is designed to meet the needs of students interested in reading assessment and instruction. This track and the thesis track both lead to state certification.

Degree Hours: (36)

Required sequence of courses:

Year 1 Spring

RED 5448	Teaching Reading by Computer	3
EDF 6608	Social, Philosophical and Historical Foundations of Education	3

Summer

RED 6314	Instruction in Literacy	3
EDP 6211	Psychological Foundations of Education	3

Fall

LAE 5415	Children's Literature	3
EDF 5481	Analysis and Application of Educational Research	3

Year 2 Spring

LAE 6319	Language Arts	3
RED 6336	Content Area Reading	3

Summer

RED 6546	Reading Diagnosis	3
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RED 6515	Reading Remediation	3
Fall		
RED 6932	Special Topics in Reading: Classroom Action Research	3
RED 6747	Research in Reading	3

Entry to Program: Fall Semester –

Students are encouraged to meet all admission requirements prior to beginning the program, however students may take a maximum of twelve (12) semester hours of course work applicable to the program prior to admission.

Block Progression: Students should take courses in the sequence shown above.

Graduation Requirements: Students must have a 3.0 GPA to graduate from the program. No more than two grades of "C" are permitted. Grades of "C-" or below will not be counted towards meeting program requirements.

Thesis Option: Students may opt to extend the MS program (3 to 6 additional thesis credit hours) by request.

Doctor of Education in Curriculum and Instruction

The Department offers Curriculum and Instruction doctoral specialties in Early Childhood Education, Elementary Education and Reading Education.

Admission Requirements

The College of Education has common admission requirements for its Doctoral Programs regardless of the specialty sought. Applicants to the program must submit the following records and documents to the FIU Office of Admissions:

1. A completed Application for Graduate Admission with appropriate fees.
2. An official copy of the Graduate Record Exam (GRE) scores.
3. Official transcripts of all higher education institutions attended.

Additionally, applicants must submit the following to the Office of Advanced Graduate Studies in the College of Education:

1. Three letters of reference attesting to the applicants ability to succeed in doctoral study.
2. A current resume/vita.
3. A statement that sets forth the applicant's career goals and relates these goals to the completion of the doctoral program.

No action will be taken on incomplete files. A file is considered incomplete if any of the above is missing.

The application and all supporting documentation are reviewed by program faculty. The criteria applied in reviewing the applicant's file are noted below. Exceptions to one or more of the stated criteria may be granted provided the applicant can provide compelling reasons and evidence.

1. A grade point average (GPA) of at least 3.0 (on a 4.0 scale) in upper level undergraduate work.
2. A 3.25 GPA in all graduate work attempted.
3. A master's degree from an accredited institution.
4. A minimum combined verbal and quantitative score of 1000 on the GRE.
5. Foreign students must demonstrate a TOEFL score of at least 500.

Upon completion of the review of the file the applicant will be interviewed by program and departmental faculty which comprise a Faculty Admissions Committee. Final decisions are made by the Faculty Admissions Committee and the Dean of the College. As admission to programs is competitive, meeting minimum admission requirements does not assure admission into the program. Additional information is available from the Coordinator of Doctoral Programs or Program Faculty. A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals.

Curriculum and Instruction Core Courses: (12)

EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Instruction: Theory and Research	3
EDG 7665	Seminar in Curriculum	3
EDF 7934	Seminar in Social Foundations of Education	3

Professional Education Core (6)

EDF 7937	Advanced Topics in the Social Foundations of Education ¹	3
EDP 7008	Educational Psychology: Advanced Applications	3

¹All doctoral students must enroll in EDF 7937 within their first year of admission.

Specialty Area: (36)

The specialty areas include art education, early childhood education, elementary education, English education, instructional leadership,

mathematics education, music education, reading education, science education, and social studies education.

Cognate Area: (18)

The cognate area requires a minimum of 18 semester hours of course work in a single area of study related to the specialty. The courses should be chosen with regard to coherence and relevance to the anticipated substantive aspect of the dissertation and in consultation with the advisor. The cognate area may be taken in the other departments of the College of Education, in the College of Arts and Sciences, or any other area offering courses relevant to the student's program.

Research and Statistics: (9)

Required Courses

STA 6166	Statistical Methods in Research	3
EDF 6486	Research Methods in Education: Design and Analysis ¹	3
¹ Prerequisite: EDF 5481 and STA 6166.		
One of the following:		
EDF 6403	Quantitative Foundations of Educational Research	3
EDF 6475	Qualitative Foundations of Educational Research	3

Candidacy Examinations and Advancement to Candidacy

The student must successfully pass candidacy examinations covering course work and also submit copies of a dissertation proposal, which has been approved by the supervisory committee, to the Dean of the College and to the Dean of Graduate Studies.

Dissertation (24)

The student is responsible for a minimum of 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge in an area of early childhood education, elementary education, secondary education, one of the K-12 areas, or in instructional leadership.

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, favorable recommendations of the supervisory and guidance committee, and an approved dissertation proposal). A minimum of six credit hours of

dissertation are taken each semester the dissertation is being prepared. Continuous enrollment in dissertation study is required (including Summer semester).

EDG 7980 Doctoral Dissertation 24

Graduate Professional Certificate Program in Reading and Language Arts

The Reading and Language Arts Certificate Program enables teachers to extend their competence in reading and language arts instruction. Completion of the Certificate Program qualifies the teacher to receive Florida State Certification in Reading, grades K-12. Entrance requirements are an introductory reading course, and a 3.0 GPA in the last two years of college work. Students are required to have completed two years of full-time teaching prior to completing the program. Applicants should apply directly to the Director of the Reading Program.

Prerequisite Course

RED 6314	Instruction in Elementary Reading	3
RED 6305	Instruction in Early Childhood Reading	3

Required Program

EDF 5481	Analysis and Application of Educational Research	3
LAE 5415	Children's Literature	3
LAE 6355	Instruction in Elementary Language Arts	3
RED 6546	Diagnosis of Reading Difficulty	3
RED 6515	Programs of Remediation in Reading	3
RED 6336	Readings in Content Area	3

Advised Elective¹

Two courses chosen from language-related courses. 6

¹Elective courses are chosen from an approved list in consultation with a Reading Program advisor.

Educational Leadership and Policy Studies

- Kingsley Baaya, Professor,**
*Curriculum and Instruction:
Instructional Leadership*
- Leonard Bliss, Professor, Educational Research**
- Peter J. Cistone, Professor,**
Educational Leadership
- Richard J. Correnti, Senior Lecturer,**
Higher Education,
- Charles Divita, Jr. Professor, Adult Education and Human Resource Development**
- Stephen M. Fain, Professor,**
*Curriculum and Instruction:
Instructional Leadership*
- Allen Fisher, Associate Professor,**
Educational Leadership
- Jo D. Gallagher, Associate Professor,**
Adult Education and Human Resource Development
- Paul D. Gallagher, Associate Professor, Educational Research, and Senior Vice President, Business and Finance**
- Barry Greenberg, Professor,**
Educational Research, Higher Education
- Tonette S. Rocco, Assistant Professor,**
Adult Education and Human Resource Development
- Janice R. Sandiford, Associate Professor, Higher Education**
- Judith J. Slater, Associate Professor,**
*Curriculum and Instruction:
Instructional Leadership*
- Douglas H. Smith, Professor, Adult Education and Human Resource Development**
- Abbas Tashakkori, Professor,**
Educational Research

The Department of Educational Leadership and Policy Studies offers the following degree programs:

Master of Science

Adult Education
Educational Leadership
Human Resource Development

Educational Specialist

Curriculum and Instruction:
Instructional Leadership
Educational Leadership

Doctor of Education

Adult Education and Human Resource Development
Curriculum and Instruction:
Instructional Leadership
Educational Administration and Supervision

Higher Education

Higher Education: Administration
Higher Education: Instruction

The department also offers a Certificate Program in Educational Leadership for students who possess a graduate degree from an accredited institution of higher education and who seek State of Florida Certification in Educational Leadership. Specialties in elementary, middle, secondary, and higher education may be included in programs of study.

The department also provides research preparation for College of Education graduate programs. The department graduate programs and support services exist to enhance the College of Education's role of a professional school within the University. The graduate programs and services provide access and offer excellence in professional preparation of educational leaders, researchers, and planners. The programs serve students who focus on South Florida's urban challenges; State of Florida cultural, economic, and social development; national educational policy development; and international cultural, economic, and social development through education.

All stated admission requirements are to be considered minimum. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Master of Science Degree Programs in Adult Education and Human Resource Development

The Graduate Programs in Adult Education and Human Resource Development (AE/HRD) are designed for the individual who chooses to serve as AE/HRD director/manager, instructional designer, teacher, instructor, trainer, counselor, and/or researcher. Graduates are working in AE and HRD programs in business and industry, public schools, hospitals, governmental agencies, community colleges, universities, civic associations, military service, and other agencies. Graduate programs of study are designed with regard to an individual's specific interests, needs, and career goals.

Two masters degree programs are offered: Adult Education and Human Resource Development.

Adult Education

The program in Adult Education is designed for persons interested in working in public school or higher education adult and continuing education. This program meets the requirements for state certification in public school adult education administration. It consists of a minimum of 36 hours, with 21 hours (seven courses) required, and a minimum of 15 hours (five courses) of elective courses.

Required Program: (36 hours minimum)

Required Core: (21-24):

ADE 5081	Introduction to Adult Education and Human Resource Development	3
ADE 5385	Adult Teaching and Learning	3
ADE 6180	Organizational/Community Processes in AE/HRD	3
ADE 6186	Comprehensive Program Evaluation in AE/HRD	3
ADE 6260	Management of AE/HRD Programs	3
ADE 6945	Internship in AE/HRD	3-6
EDF 5481	Analysis and Application of Education Research	3
Advised electives (15 hours minimum)		

Human Resource Development (HRD)

The program in Human Resource Development is designed for persons interested in working in business and industry, government, health, and other similar organizations. The program consists of a minimum of 36 hours, with 24 hours (8 courses) required, and a minimum of 12 hours (four courses) of elective courses.

Required Program: (36 hours minimum)

Required Core: (24) (Courses are listed in required sequence)

ADE 5081	Introduction to Adult Education and Human Resource Development	3
ADE 5385	Adult Teaching and Learning	3
ADE 5383	Instructional Analysis and Design	3
ADE 6286	Instructional Development and Implementation	3

ADE 6260	Management of AE/HRD Programs	3
ADE 6945	Internship in AE/HRD	3
EDF 5481	Analysis and Application of Education Research	3

Advised Electives (12 hours minimum)

Master of Science in Educational Leadership

The Master of Science (M.S.) degree program in Educational Leadership comprises courses and experiences designed to develop entry level competencies in the practice of educational leadership. The program incorporates coursework that constitutes the "modified Florida program in educational leadership" at Florida International University and addresses the competencies assessed in the Florida Educational Leadership Examination. The program may be used to satisfy part of the requirements of the Florida Department of Education for state certification in Educational Leadership.

Admission Requirements

Admission to the program is based on the following criteria:

1. A grade point average of at least 3.0 (on a 4.0 scale) in the last 60 semester hours of undergraduate work;
2. A minimum combined score of 800 on the verbal and quantitative portions of the Graduate Record Examination (General Test);
3. Three years of successful full-time teaching experience and a regular Florida teaching certificate.

Program of Study

EDA 6061	Introduction to Educational Leadership	3
EDA 6192	Leadership in Education	3
EDA 6195	Communication in Educational Leadership	3
EDA 6232	School Law	3
EDA 6242	School Finance	3
EDA 6271	Microcomputer Application for Administrators	3
EDA 6930	Seminar in Educational Leadership	3
EDF 5481	Analysis and Application of Educational Research	3
EDS 6115	School Personnel Management	3
EDF 6608	Social, Philosophical and Historical Foundations of Education	3

EDP 6211	Psychological Foundations of Education	3
	Advisor approved electives	6
	Total Semester Hours	39

Six semester hours of approved electives must be earned in one of the following areas: Early Childhood, Middle School, Secondary School, or Exceptional Student Education. The selection of courses to meet this requirement requires the approval of a faculty advisor.

Educational Specialist in Curriculum and Instruction

The Educational Specialist program in Curriculum and Instruction is designed to build upon the educator's masters degree preparation and professional experience. The program introduces professional educators to the theoretical basis of curriculum and instruction and provides opportunities for students to connect theory with practice. The program requires a minimum of 36 semester hours beyond the masters.

Admission Requirements

Applicants must hold a masters degree in some area of education. A 3.0 GPA in the last 60 semester hours of undergraduate study or a 3.5 GPA in the master's program from an accredited university and a combined verbal and quantitative score of 1000 on the Graduate Record Examination (GRE) are required. Two letters of recommendation and an interview with program faculty are also required. A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals.

Core Courses:

EDG 6250	General Curriculum Development	3
EDG 6286	Curriculum Evaluation	3
EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Instruction: Theory and Research	3
EDG 7665	Seminar in Curriculum	3
EDG 7934	Seminar in the Social Foundations	3
EDP 7057	Educational Psychology: Advanced Applications	3
EDF 7937	Advanced Topics in the Social Foundations of Education	3

Research and Statistics: (9)
Required Courses:

STA 6166	Statistical Methods in Research	3
EDF 6486	Research Methods in Education: Experimental Design and Analysis ¹	3

¹Prerequisite: EDF 5481 and STA 6166.

One of the following:

EDF 6403	Quantitative Foundations of Education	3
	or	
EDF 6475	Qualitative Foundations of Educational Research	3

Nine semester hours plus M.A./M.S. major area work for a total of at least 18 semester hours in the specialized area may be required). These courses are selected with faculty advisor in the area of specialization.

Residency

Students must complete a residency requirement by taking at least 18 semester hours in one calendar year.

Transfer of Credit

Students may transfer no more than 6 hours for their Master's Degree program. All transfer credit must be approved by the student's Program of Studies Committee.

Educational Specialist in Educational Leadership

The Educational Specialist (Ed.S.) degree program in Educational Leadership is intended to provide professional educators with an opportunity to develop competencies in areas of special needs and interests in the field of Educational Administration/Leadership. Consequently, there are few required courses and each student's program is individually planned in consultation with a faculty advisor. The program may be used to satisfy part of the requirements of the Florida Department of Education for state certification in Educational Leadership.

Admission Requirements

Admission to the program is based on the following criteria:

1. A bachelor's degree and a grade point average of at least 3.0 (on a 4.0 scale) in the last 60 semester hours of undergraduate work;
2. A master's degree and a grade point average of at least 3.25 in all graduate work attempted;
3. A minimum combined score of 800 on the verbal and quantitative portions of the Graduate Record Examination (General Test);

- 4. Three years of successful full-time teaching experience and a regular Florida teaching certificate;

Program of Study

The program of study comprises a minimum of 39 semester hours and is planned in consultation with and approved by a faculty advisor. The structure of the program is as follows:

EDA 6061	Introduction to Educational Leadership	3
EDF 6608	Social, Philosophical and Historical Foundations of Education	3
EDF 6211	Psychological Foundation of Education	3
Guided electives in Educational Administration/Leadership		24
Guided electives in Research/Statistics/Measurement and Evaluation		6
Total Semester Hours		39

Doctor of Education Degree Programs

Common Minimum Admission Requirements

The College of Education has common admission requirements for its doctoral programs regardless of the specialty sought. Applicants to the program must submit the following records and documents to the Office of Admissions:

1. A completed Application for Graduate Admission with appropriate fees.
 2. An official copy of the Graduate Record Exam (GRE) scores.
 3. Official transcripts of all higher education institutions attended.
- Additionally, applicants must submit the following to the Office of Advanced Graduate Studies in the College of Education.

1. Three letters of reference attesting to the applicant's ability to succeed in doctoral study.
2. A current resume/vita.
3. A statement that sets forth the applicant's career goals and relates these goals to the completion of the doctoral program.

No action will be taken on incomplete files. A file is considered incomplete if any of the above is missing.

The application and all supporting documentation are reviewed by program faculty. The criteria applied in reviewing the applicant's file are noted below. Exceptions to one or more of the stated criteria may be granted

provided the applicant can provide compelling reasons and evidence.

1. A grade point average (GPA) of at least 3.0 (on a 4.0 scale) in upper level undergraduate work;
2. A 3.25 GPA in all graduate work attempted;
3. A master's degree from an accredited institution;
4. A minimum combined verbal and quantitative score of 1000 on the GRE;
5. Foreign students must demonstrate a TOEFL score of at least 500.

Upon completion of the review of the file the applicant will be interviewed by program and departmental faculty which comprise a Faculty Admissions Committee. Final decisions are made by the Faculty Admissions Committee and the Dean of the College. As admission to programs is competitive, meeting minimum admission requirements does not assure admission into the program. A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals. Additional information is available from the Coordinator of Doctoral Programs or program faculty.

Professional Education Core

EDF 7937	Advanced Topics in the Social Foundations of Education	3
EDF 7057	Educational Psychology: Advanced Applications	3

All doctoral students must enroll in EDF 7937 within their first year of admission.

Research and Statistics Component of Doctoral Programs

A research requirement of nine semester hours, taken in the order listed, is common to all College of Education doctoral programs.

Research and Statistics Core (9 hours minimum)

STA 6166	Statistical Methods in Research I	3
EDF 6486	Research Methods in Education: Experimental Design and Analysis ¹	3

¹Prerequisite: EDF 5481 and STA 6166.

One of the following:

EDF 6403	Quantitative Foundations of Educational Research	3
EDF 6475	Qualitative Foundations of Educational Research	3

Candidacy Examinations and Advancement to Candidacy

The student must successfully pass both written and oral candidacy examinations covering course work and also submit copies of a dissertation proposal, which has been approved by the supervisory committee, to the Dean of the College and to the Dean of Graduate Studies.

Program Core (24-36 hours minimum)

Dissertation (24 hours minimum)

The student is responsible for a minimum of 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge. The doctoral dissertation is the final component of the series of academic experiences that culminate in the awarding of the Ed.D. degree. A successful dissertation is a demonstration of the candidate's ability to use the tools and methods of basic and/or applied research in the field, to organize the findings, and to report them in a literate, logical, and compelling fashion.

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, and favorable recommendations of the supervisory and guidance committee). A minimum of six credit hours of dissertation are to be undertaken each semester the dissertation is being prepared. Continuous enrollment in dissertation study is required (including summer semester).

Adult Education and Human Resource Development (AE/HRD)

The doctoral program in Adult Education and Human Resource Development (AE/HRD) is designed to serve the advanced graduate study needs of a wide range of professionals in leadership positions who are concerned with the design, implementation, and evaluation of educational and training programs for adults. These professionals may be engaged in program development and evaluation, instruction and training,

counseling and advisement, consultation, and marketing and recruitment activities designed to further the growth and development of adult learners, or to improve organizational functioning through educationally-related intervention strategies, or both. Accordingly, participants in the program come from such diverse backgrounds as business and industry, higher education, public and proprietary schools, health and social service agencies, law enforcement and corrections, the military, governmental agencies, religious organizations, libraries and museums, and civic and professional associations.

Additional Admission Requirements

In addition to the admission requirements stated, the applicant must possess:

1. Evidence of commitment to a career in the broad field of Adult Education and HRD;
2. Successful professional experience in the field of Adult Education and HRD;
3. Potential for leadership or research in the field, or both.

A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals.

Program of Study

Doctorate programs of study vary according to the individual needs of the participants and their current or anticipated professional goals. A typical program will require a minimum of 101 semester hours beyond the baccalaureate degree and will involve the categories of courses noted below. The list should be considered as a sample program rather than an absolute delineation of exact requirements. Actual programs are planned by the participants, their major professor, and their program of studies supervisory committee.

Adult Education/Human Resource Development Core (18-24)

Adult Education and HRD core includes such courses as comprehensive Adult Education and HRD planning, program development, instructional design, adult teaching and learning, Adult Education and HRD

trends and issues, strategies, and research.

Professional Education Core (6 hours minimum)

Electives (3-9)

Elective Core varies according to the participants' background and professional goals.

Research and Statistics (9)

Prospectus and Dissertation (24)

The student is responsible for a minimum of 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge in an area of Adult Education or Human Resource Development.

The student is expected to complete the dissertation within nine years from the date of admission to the AE/HRD doctoral program. A minimum of six credit hours of dissertation are to be undertaken each semester the dissertation is being prepared. Continuous enrollment in dissertation study is required (including Summer semester).

Curriculum and Instruction

The doctoral program in Curriculum and Instruction offers specialties in the following areas: Art Education, Early Childhood Education, Elementary Education, English Education, Instructional Leadership, Mathematics Education, Modern Language Education, Music Education, Reading, Science Education, and Social Studies Education.

Additional Admission Requirements

In addition to the admission requirements stated, the applicant must possess:

1. Career goals in professional education consistent with the objectives of a doctoral program.
2. Appropriate prior work experience.

A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals.

Curriculum and Instruction Core Courses: (9)

EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Instruction: Theory and Research	3
EDG 7665	Seminar in Curriculum	3

Professional Education Core (6)

EDF 7937	Advanced Topics in the Social Foundations of Education	3
EDP 7057	Educational Psychology: Advanced Applications	3

Specialty Area: (36)

The specialty areas include art education, early childhood education, elementary education, English education, instructional leadership, mathematics education, modern language education, music education, reading education, science education, and social studies education.

Cognate Area: (18)

The cognate area requires a minimum of 18 semester hours of course work in a single area of study related to the specialty. The courses should be chosen with regard to coherence and relevance to the anticipated substantive aspect of the dissertation and in consultation with the advisor. The cognate area may be taken in the College of Education, in the College of Arts and Sciences, or any other area offering courses relevant to the student's program.

Candidacy Examinations and Advancement to Candidacy

The student must successfully pass candidacy examinations covering course work and also submit copies of a dissertation proposal, which has been approved by the supervisory committee, to the Dean of the School and to the Dean of Graduate Studies.

Dissertation (24)

The student is responsible for a minimum of 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge in an area of early childhood education, elementary education, secondary education, one of the K-12 areas, or in instructional leadership.

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, favorable recommendations of the supervisory and guidance committee, and an approved dissertation proposal). A minimum of six credit hours of dissertation are taken each semester the dissertation is being prepared. Continuous enrollment in dissertation study (including Summer semester) is required.

EDG 7980	Doctoral Dissertation	24
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Educational Administration and Supervision Doctoral Program

The doctoral program in Educational Administration and Supervision is designed for students who wish to pursue leadership roles in educational institutions. The program of studies prepares students for careers as school superintendents, principals, directors and supervisors; administrators in state, federal, and international agencies; professors of Educational Administration; and administrators in institutions of higher education.

The curriculum is designed to enable students to become familiar with and utilize effectively both theoretical and technical knowledge. The program of study is multidisciplinary and integrates broad intellectual perspectives into the study and practice of Educational Administration.

Additional Admission Requirements

In addition to the common admission requirements for doctoral programs in the College of Education, the applicant must:

1. Provide evidence of at least three years of successful and appropriate professional experience.
2. Engage in an interview with a committee of program faculty.
3. Receive a positive endorsement of the program faculty.

Program of Study

The program requires the completion of a minimum of 99 semester hours of academic work beyond the baccalaureate degree. Program requirements include the following:

Educational Administration and Supervision	33
Minor/Cognate Area	15
Professional Education Core	6
Research and Statistics Core	12

Upon completion of the course work, each student must pass a doctoral candidacy examination and be advanced to candidacy.

Doctoral Dissertation (EDA 7980)

24

A candidate for the doctorate in Educational Administration and Supervision is required to prepare and present for faculty approval a doctoral dissertation that demonstrates a capacity for independent thought and for the application of tools and

methods of research to educational issues and problems.

Higher Education

The doctoral program in Higher Education is practitioner oriented designed to provide the opportunity for specially selected individuals to enhance instructional, administration, and research skills for leadership roles related to the continuing development and operation of higher education institutions. The program is offered in a format to make it attractive and available to place bound professionals in Southeast Florida. The program is designed to stimulate research related to higher education, particularly in the development of innovative administrative and instructional approaches appropriate for urban settings. A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals.

Post-baccalaureate course work minimum requirements for the degree, while subject to individual variations, consist of the following:

Higher Education Core: (21)

EDH 7065	Higher Education: Philosophical and Historical Perspectives	3
EDH 7204	Higher Education: Community College	3
EDG 7222	Curriculum Theory and Research	3

Additional courses in Education that will enhance the student's instructional and/or administrative abilities and skills.

In addition to one of the above specialties the following are required:

Professional Education Core (6)

Cognate Area: (18)

The cognate area may be taken in one or more subject areas and may include graduate or undergraduate (post-baccalaureate) courses. The design of the cognate for Higher Education Instruction should assist the student in developing into a well-rounded teacher, one who is able to adapt to changing conditions of instruction. The design of the cognate for Higher Education Administration should assist the student in developing essential administrative leadership skills.

Research and Statistics Core: (9)

The research and statistics requirement is designed to assist the student in

expanding the capacity to use research related to instruction.

Dissertation: (24)

The dissertation should be on a topic of importance to higher education and should reflect the student's professional interests and goals.

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, favorable recommendations of the supervisory and guidance committee, and an approved dissertation proposal). A minimum of six credit hours of dissertation are to be undertaken each semester the dissertation is being prepared. Continuous enrollment in dissertation is required (including summer semester).

Educational Leadership Certificate Program

The Certificate Program in Educational Leadership is designed for students who have a master's degree in a subject or field of Education other than Educational Administration/Leadership. The coursework constitutes the "modified Florida program in educational leadership" at Florida International University and addresses the competencies assessed in the Florida Educational Leadership Examination. The program may be used to satisfy part of the requirements of the Florida Department of Education for certification in Educational Leadership.

Admission Requirements

Admission to the program requires:

1. A completed application form submitted to the Program Leader in Educational Leadership;
2. A master's degree;
3. A regular Florida teaching certificate;
4. A grade point average of at least 3.0 (on a 4.0 scale) in master's degree work;
5. A minimum combined score of 800 on the verbal and quantitative portions of the Graduate Record Examination (General Test);
6. At least three years of successful teaching experience.

Program of Study

EDA 6192	Leadership in Education	3
EDA 6195	Communication in Educational Leadership	3
EDA 6232	School Law	3
EDA 6242	School Finance	3

EDA 6271C	Microcomputer Applications for Administrators	3
EDA 6503	The Principalship	3
EDS 6115	School Personnel Management	3
Advisor-approved elective in Curriculum and Instruction		3
Total semester hours		24

Educational Psychology and Special Education

- Patricia Barbeta**, *Chairperson*
Associate Professor, Emotionally Handicapped, Special Education
- Linda P. Blanton**, *Dean and Professor*,
Special Education
- Judith Cohen**, *Special Education*
Field Placement Coordinator
- Wendy Cheyney**, *Professor and*
Associate Dean, Learning Disabilities
- Patricia del Valle**, *Assistant Professor*,
School Psychology, Counselor Education
- Marisal Gavilan**, *Associate Professor*,
Educational Psychology/Bilingual Education
- Maureen Kenny**, *Assistant Professor*,
Counselor Education
- Philip J. Lazarus**, *Associate Professor*, *School Psychology*,
Counselor Education
- Luretha F. Lucky**, *Associate Professor*, *Mental Retardation*
- Adriana McEachern**, *Associate Professor*, *Counselor Education*
- Martha Pelaez**, *Associate Professor*,
Educational Psychology, Behavior Analysis
- Ana Rego**, *Visiting Professor*,
Special Education
- Howard Rosenberg**, *Associate Professor*, *Mental Retardation*
- Stephen S. Strichart**, *Professor*,
Learning Disabilities
- Jethro W. Toomer**, *Professor*,
Community Counselor Education

The Department of Educational Psychology and Special Education offers a variety of programs to prepare counselors to work in school and community mental health settings, psychologists to work in the schools, and teachers of students who have emotional disturbance, learning disabilities, and mental retardation and those who are gifted. All programs require substantial supervised field-work. State of Florida certification requirements are met or are prerequisites for all programs preparing school personnel.

It is recommended that students meet with an advisor throughout the program to assure adequate progress.

Master of Science

- Community Mental Health Counseling
- School Counseling
- Special Education
- Varying Exceptionalities (Alternate Track Masters Degree)

- Educational Specialist
- School Psychology
- Doctor of Education
- Exceptional Student Education

Master of Science Degree Programs

Educational Psychology

Programs within the field of Educational Psychology are designed to train professionals to meet the unique needs of individuals who experience cognitive, academic, and/or social-emotional difficulties that interfere with the individual's progress in school and in the community. Specific competencies are delineated for professionals in the field of school counseling, community mental health counseling, and school psychology.

These programs emphasize the blending of research and theory with practical applied experience. They consider the urban and multicultural nature of the community, as well as more general trends within specific fields. All programs involve extensive field work with accompanying seminars. Independent study courses are available to allow students to pursue specialized interests and needs.

Applicants are required to submit an application to the Office of Admissions. All applicants must present GRE scores for the Verbal and Quantitative sections, as well as all official transcripts to the Office of Admissions at the University. Three letters of recommendation (at least one from academic sources and one from work or volunteer experience), an autobiographical statement and a curriculum vitae (resume) need to be submitted to the Department's Graduate Admissions Committee. Candidates are admitted by action of the Department's Graduate Admissions Committee. Minimum criteria for program acceptance include appropriate GRE scores, undergraduate grade point average during 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 or GPA of 'B' or higher during the undergraduate junior and senior years (i.e. last 60 semester hours), or both, are required for a candidate to be admitted via regular procedures. An interview is required for admissions into the School Psychology program, and may be required for admission into the Mental Health

Counseling and School Counseling programs.

Regardless of the GPA, GRE scores must be submitted. Students with GRE scores less than 800 may be required to retake the exam. Students may transfer nine semester hours earned at another institution into the program provided the course work taken does not exceed a three year time period. Transferring in more than 9 hours requires special permission from your advisor and the Office of Graduate Studies. Students are allowed a maximum of six years from the date of initial enrollment to complete program requirements. Periods of noncontinuous enrollment do not count against the six year period provided a "Request for Program Interruption" is approved by the Graduate Admissions Committee.

Given the unique nature of the fields of counseling and school psychology requiring mastery of cognitive skills and demonstration of relevant and appropriate interpersonal skills, the faculty retains the right to "counsel out" of the program and/or not recommend for internship placement any student whose level of interpersonal competence is considered incompatible with that required for effective functioning as a practitioner in counseling or school psychology.

All stated admission requirements are to be considered minimal. A student who meets these minimal requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements. Applications are reviewed upon their completion. Allow 6-8 weeks for application to be processed by the Admissions Office.

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.

Once admitted, each student is responsible for tracking academic progress throughout the program, and a degree can be revoked if academic dishonesty or fraudulence is discovered.

Counselor Education Tracks

The counselor education tracks require 60 semester hours, for the Mental Health tracks and 54 semester hours for the School Counseling track and leads to the Master of Science degree. The tracks follow 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 mental health or school counseling. Both areas of specialization meet the standards recommended by the American Counseling Association and specialization in school counseling qualifies the graduate for the Florida School Guidance Certificate. The Community Mental Health Counseling curriculum meets the master's degree requirement for eligibility towards licensure as a mental health counselor by the State of Florida, Department of Professional Regulation.

The prospective student should be advised that a substantial amount of time is spent in field work to meet practicum and internship requirements. Completion of the practicum and internship requirement involves field placement on a full-time basis for the last two semesters in the program. The student should plan for this field work to be during the day, rather than during evening hours. Program completion is not compatible with full time employment.

All students entering the School Counseling track with an undergraduate degree in an area other than education must enroll for courses in general professional education as required by the Florida State Department of Education in order to meet state certification requirements in Florida.

Students applying to the Community Mental Health Counseling program with an out-of-field undergraduate major must complete 18 hours of prerequisite course work.

Students enrolling in courses under Special Student status, must meet all existing prerequisites prior to course enrollment and obtain permission of the instructor. Due to the importance of continuity in skill development for counselor training, required prerequisites must be met within a two year period prior to enrollment. Additionally, instructor permission may be required.

Community Mental Health Counseling (beginning Fall 2001)

All students admitted to the program beginning Fall 2001 will follow the course of study outlined below (pending College and University Curriculum Committee approval). This program meets the new standards of the Department of Business and Professional Regulation in the State of Florida.

Changes in program were being made at the time of the catalog revision. Please see advisor for up-to-date information.

Degree Hours: (60)

EDP 6506	Human Development: Across the Lifespan	3
MHS 5400	Counseling Skills and Techniques	3
MHS 6802	Personality Theories	3
MHS 6511	Group Counseling	3
MHS 5350	Educational-Vocational Counseling	3
MHS 6428	Cross Cultural Counseling	3
MHS 6200	Measurement and Appraisal in Counseling	3
EDF 5481	Analysis and Application of Educational Research	3
MHS 6700	Professional Problems in Counseling	3
MHS xxxx	Foundations of Mental Health Counseling	3
MHS 6411	Advanced Counseling and Consultation: Theory and Practice	3
MHS 6427	Adult Psychopathology	3
MHS 6450	Substance Abuse Counseling	3
MHS 6470	Human Sexuality Counseling	3
MHS 6800	Advanced Practicum in Counseling and Consultation	9
MHS 6820	Supervised Field Experience Counseling	9

Note: This program of study is subject to change at anytime based on state mandates.

School Counseling

Degree Hours: (54)

Professional Studies: (9)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6608	Social, Philosophical, Historical Foundations of Education	3
EDF 6211	Educational Psychology	3

Counseling Core: (18)

MHS 5350	Educational-Vocational Counseling Skills and Techniques	3
MHS 5400	Measurement and Appraisal in Counseling	3
MHS 6200	Cross Cultural Counseling	3
MHS 6428	Group Counseling	3
MHS 6511	Personality Theories	3
MHS 6802	Personality Theories	3
SDS 5460	Crisis Counseling and Interventions	3
SDS 6411	Counseling Children and Adolescents	3
SDS 6700	Organization and Administration of School Counseling	3
SDS 6784	School Law for Student Services Workers	3
SPS 6199	Family, School Consultation and Collaboration	3
EEX 6051	Education of Students with Exceptionalities	3

Professional Clinical

Experiences: (9)

SDS 6800	Advanced Practicum in Counseling and Consultation	3
SDS 6820	Supervised Field Experience in Counselor Education	6

Corequisites: Students who do not hold a Florida Teacher's Certificate must complete 6 credits of courses covering general methods of teaching requirements prior to graduation. Students must also show proof of passing the Teacher Competency Examination. Application for professional experiences must have faculty advisor approval and must be submitted to the office of the director of student teaching by March 1 for fall semester placements and July 1 for spring placements.

Special Education

The Department offers two master's degrees and a doctoral program in Special Education.

The Master's Program in Special Education is for students already certified in an area of Exceptional Student Education. It consists of a common core of 27 credits in advanced areas of special education, plus a choice of 9 credits in an area of concentration. Some areas of concentration may lead to additional endorsement or certification. Special areas of concentration may be planned

with the advisor. This program has a total of 36 credits.

The Alternate Track Master's Program in Varying Exceptionalities is for students holding a baccalaureate degree in an area other than education. It provides the student with entry level skills for teaching students with mild disabilities and the appropriate course work to be certifiable in varying exceptionalities. In addition, several advanced theory and research courses are required. A second Alternate Track Master's Degree is available for students who already hold a teaching certificate in Elementary Education.

The Doctoral Program in Exceptional Student Education prepares students for administrative, supervisory, research, and/or university faculty positions in Special Education.

Master of Science Degree in Special Education

The major competencies in the Master's Degree program in Special Education are an extension and refinement of those developed by the student in the undergraduate special education curriculum, and include: a) assessment of learning through observation and on-going monitoring techniques; b) application of behavioral approaches to the building, monitoring and modification of classroom behavior; c) communication of information concerning children to others within the school and to parents, d) curriculum planning and innovation including staffings and IEP development; e) supervision and leadership of special education classrooms; and f) consultation skills.

Program applicants are required to submit an application to 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 Department'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 or GPA of 3.0 or higher, during the undergraduate junior and

senior years is required for a candidate to be admitted via regular procedures. Regardless of the GPA, the applicant must submit a GRE score. Applicants who do not hold a valid Florida Teaching Certificate must complete all requirements for certification in addition to degree requirements.

Professional Certificate programs are available in a number of specialized areas. Consult the program faculty for further information.

In-Field Majors

The following Master's program of study is for the student who holds an undergraduate degree in Special Education from Florida International University. A student with an undergraduate major in Special Education from another institution must plan a program with an academic advisor to ensure having the entry skills for this program.

Degree Program Hours: (36)

Required Core For All Students: (27)

EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
EDF 6211	Educational Psychology: Foundations and Applications	3
EDF 5481	Analysis and Application of Educational Research	3
EEX 6846	Seminar in Special Education: Issues and Trends	3
EEX 6535	Seminar in Special Education: Supervision and Leadership	3
EEX 6912	Advanced Theory and Research in Special Education	3
SPS 6199	Family/School Consultation and Collaboration	3
EEX 6765	Instructional Technology	3
EEX 6228	Integration of Assessment, Curriculum and Instruction ¹	3

Optional

EEX 6971	Masters Thesis	6
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Area of concentration 9
Area of concentration may be selected from an endorsement such as Gifted, ESOL, or as planned and approved by student and advisor.

Gifted Education (Endorsement)

EEX 6417	Guidance and Counseling of Gifted	3
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EGI 5051	Nature and Needs of Gifted	3
EGI 5232	Educational Procedures and Curriculum for the Gifted	3
EGI 6306	Creativity and the Gifted	3
EGI 6405	Special Populations Gifted	3

Special Education Masters for Students Holding a Florida Certification in Elementary Education

This 42-45 credit program includes professional studies and special education core courses with four different certification options. This track with one of the selected options includes courses that commonly allow students to obtain course-by-course certification from the state on one of four areas of special education: emotional handicaps, learning disabilities, mental handicaps, and/or varying exceptionalities.

This is NOT a certification program. Students will be required to apply for course-by-course certification from the State of Florida. Special education advisors will assist students in this process. With additional courses, this program may also be appropriate for those holding other teaching certificates.

Professional Studies Core

EDF 5481	Analysis and Application of Educational Research	3
EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
EDF 6211	Psychological Foundations of Education	3

Special Education Core

EEX 6765	Instructional Technology for Special Education	3
SPS 6199	Family/School Consultation and Collaboration	3
EEX 6051	Education of Students with Exceptionalities	3
EEX 6227	Educational Assessment	3
EEX 6771	Independent Living for Individuals with Disabilities	3
EEX 6106	Acquisition of Speech and Language Skills	3

EEX 6608	Applied Behavior Analysis in Education	3
EEX 6228	Integration of Curriculum, Assessment, and Instruction	3

Certification Option #1: Emotionally Handicapped

EED 6226	Advanced Theory and Practice in Emotional Handicaps	3
EED 5225	Strategies for Students with Emotional Handicaps	3
EED 4244	Curriculum for Teaching Students with Emotional Handicaps	3
EED 4212	Applying Behavioral Approaches to Classroom Learning II	3

Certification Option #2: Learning Disabilities

ELD 6323	Advanced Theory and Practice in Learning Disabilities	3
ELD 5235	Strategies for Students with Learning Disabilities	3
ELD 4230	Curriculum for Teaching Students with Learning Disabilities	3

Certification Option #3: Mentally Handicapped

EMR 6852	Advanced Theory and Practice in Mental Retardation	3
EMR 5215	Strategies for Students with Mental Retardation	3
EMR 4221	Curriculum for Teaching Students with Mental Retardation	3

Certification Option #4: Varying Exceptionalities

EED 5225	Strategies for Students with Emotional Handicaps	3
ELD 5235	Strategies for Students with Learning Disabilities	3
EMR 5215	Strategies for Students with Mental Retardation	3
EEX 6060	Curriculum for Teaching Students with Mild	3

Out-of-Field Majors

Students with certification in Elementary Education may enter the Master's degree program in Special Education by meeting the standard entrance requirements and completing the course work which enables them to be certified in an area of exceptional

student education. The required Special Education Core courses and the specialization course requirements are listed below.

Students certified in an area other than Elementary Education should see an advisor for an individual program of study analysis.

A student eligible for or holding a Florida Teaching Certificate in other areas of education should consult with an academic advisor for evaluation of entry competencies to the program.

Required Special Education Core¹

EEX 6051	Education of Students with Exceptionalities	3
EEX 6106	Acquisition of Speech and Language Skills	3
EEX 6227	Educational Assessment of Students with Exceptionalities	3
EEX 6608	Applied Behavior Analysis in Education	3
EEX 6771	Independent Living for People with Disabilities	3

Specialization Requirements

Varying Exceptionalities

EEX 4240	Nature and Needs of Students with Mild Disabilities ¹	3
EED 5225	or Strategies for Teaching Students with Emotional Handicaps ¹	3
EEX 6060	Curriculum Planning and Development in Special Education	3
ELD 5235	Strategies for Teaching Students with Learning Disabilities ¹	3
EMR 5215	Strategies for Teaching Students with Mental Retardation ¹	3

Mental Retardation

EMR 4221	Curriculum for Teaching Students with Mental Retardation	3
EMR 5215	Strategies for Teaching Students with Mental Retardation ¹	3
EMR 6852	Advanced Theory and Practice: Mental Retardation	3

Learning Disabilities

ELD 4230	Curriculum for Teaching Students with Learning Disabilities	3
ELD 5235	Strategies for Teaching Students with Learning Disabilities ¹	3
ELD 6323	Advanced Theory and Practice: Learning Disability	3

Emotionally Handicapped

EED 4212	Behavioral Approaches to Classroom Learning	3
EED 4244	Curriculum for Teaching Students with Emotional Handicaps	3
EED 5225	Strategies for Teaching Students with Emotional Handicaps ¹	3
EED 6226	Advanced Theory and Practice: Emotional Handicaps	3

Undergraduate or graduate courses may be taken as part of this program; however, students must ensure that at the time of graduation they have 30 credit hours of master's level course work.

¹Extensive field work required.

Alternate Master's Track: Varying Exceptionalities

Admission requirements to the Alternate Master's Track in Varying Exceptionalities are the same as those of the Special Education Master's Program.

Students holding a baccalaureate degree outside of education may prepare for entry level into the field of special education by completing the Alternate Master's Track program, which includes the following course work. Changes in program were being made at the time of the catalog revision. Please see advisor for up-to-date information.

Professional Studies

EDG 5414	Instructional Strategies for the Classroom Teacher	4
EDG 5414L	Instructional Strategies for the Classroom Lab	1
EDF 5517	History of American Education	3
EDP 5053	Educational Psychology: Principles and Applications	3
EDF 5481	Analysis and Application of Educational Research	3
EEX 6051	Education of Students with Exceptionalities	3
EEX 6106	Acquisition of Speech and Language Skills	3
EEX 6227	Educational Assessment of Students with Exceptionalities	3
EEX 6608	Applied Behavior Analysis in Education	3
EEX 6771	Independent Living for Individuals with Disabilities	3

program should plan for it during the final stage of their training. At least 600 hours of the internship must be in a setting from kindergarten to grade 12 in a public school. Other approved internship experiences may include private state approved educational programs or other appropriate mental health-related programs or settings for the education of children and youth.

All students entering the School Psychology program with an undergraduate degree in an area other than education must enroll for the courses in general professional education required to meet certification requirements in the State of Florida. All applicants must also have completed 15 hours of prerequisite undergraduate course work in psychology.

Former recipients of the MS degree in School Psychology at this institution may upgrade their degree to the Ed.S. by taking a sequence of courses approved by the department.

Doctor of Education in Exceptional Student Education

The Doctoral Program in Exceptional Student Education prepares leadership personnel capable of advancing educational opportunities available to students with disabilities and the professional who serves them. The program prepares professionals for a broad view of leadership, capable of assuming roles as administrator, curriculum specialist, researcher, advocate, inservice and preservice trainer and others. Graduates take on leadership positions in schools, state government, private non-profit agencies, professional organizations, and other institutions of higher education.

Admission Requirements

The College of Education has common admission requirements for its Doctoral Programs regardless of the specialty sought. Applicants to the program must submit the following records and documents to the Office of Admissions:

1. A completed Application for Graduate Admission with appropriate fees.
2. An official copy of the Graduate Record Exam (GRE) scores.
3. Official transcripts of all higher education institutions attended.

Additionally, applicants must submit the following to the Office of

Advanced Graduate Studies in the College of Education.

1. Three letters of reference attesting to the applicants ability to succeed in doctoral study.

2. A current resume/vita.

3. A portfolio that sets forth the applicant's career goals and relates these goals to the completion of the doctoral program. See department application for guidelines.

No action will be taken on incomplete files. A file is considered incomplete if any of the above is missing.

The application and all supporting documentation are reviewed by program faculty. The criteria applied in reviewing the applicant's file are noted below. Exceptions to one or more of the stated criteria may be granted provided the applicant can provide compelling reasons and evidence.

1. A grade point average (GPA) of at least 3.0 (on a 4.0 scale) in upper level undergraduate work;

2. A 3.25 GPA in all graduate work attempted;

3. A master's degree from an accredited institution;

4. A minimum combined verbal and quantitative score of 1000 on the GRE;

5. Foreign students must demonstrate a TOEFL score of at least 500.

Upon completion of the review of the file, the applicant will be interviewed by program and departmental faculty which comprise a Faculty Admissions Committee. Final decisions are made by the Faculty Admissions Committee and the Dean of the College. As admission to programs is competitive, meeting minimum admission requirements does not assure admission into the program. A candidate for admission to the program will be judged not only on the basis of quantitative criteria (listed elsewhere in this catalog) but also in relation to prior experience, especially as it relates to future career goals. Additional information is available from the Coordinator of Doctoral Programs or Program Faculty.

Professional Studies Core: (6)

EDP 7057	Educational Psychology: Advanced Applications	3
EDF 7937	Advanced Topics in Social Foundations of Education	3

Special Education Core: (18)

EEX 7930	Professional Seminar in Special Education (repeated 6 times)	1
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EEX 7933	Advanced Topics in Special Education (repeated 2 times)	6
EEX 6912	Advanced Theory and Research in Special Education	3
EEX 6535	Seminar in Special Ed.: Supervision and Leadership	3
EEX 7977	Research and Evaluation in Special Education	3
EEX 7964	Comprehensive Examination	0

Note: Revisions to the Special Education core will take effect during the Fall 1999 semester. Please obtain guidelines from the Department.

Research Methods and Statistics: (12)

STA 6166	Statistical Methods in Research	3
EDF 6486	Research Methods in Education: Experimental Design and Analysis	3
EDP 7058	Behavioral Intervention Research and Evaluation in Education	3
EDF 6403	Quantitative Foundations of Education	3
EDF 6475	Qualitative Foundations of Educational Research	3

Cognate or Minor Area of Study(15-18)

Course work in a career emphasis including: Administration and Supervision, Educational Psychology, or a self-designed minor area of study.

Dissertation Study (24)

EEX 7980	Doctoral Dissertation	24
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Other Requirements:

Leadership competency activities, candidacy research, candidacy examination, residency (18 credits within one calendar year), dissertation proposal, dissertation, oral defense of dissertation.

Doctoral Cognate in Educational Psychology

The doctoral cognate in Educational Psychology provides advanced professional development for students already working toward the Doctor of Education in a number of majors available within the College.

The cognate prepares students in one of three areas of educational psychology: 1) learning and instruction, 2) individual differences in develop-

ment, and 3) measurement and assessment. The cognate provides students with foundational and advanced applications of psychology by offering alternative programs of study. It also gives students the opportunity to work with faculty members in educational psychology, school psychology, school counseling, mental health, and special education programs and departments. A student who completes the cognate in Educational Psychology at the doctoral level is expected to: a) apply psychological principles to contemporary issues in education; b) seek ways to improve educational practice, evaluation, and assessment; c) develop innovative and facilitative teaching/learning procedures at all developmental levels; and d) analyze the major psychologically based programs for educational reform. The cognate assists doctoral students to design research in their individual fields of study.

Course Requirements

Required Core (9 credits)

- EDP 6215 Applications of Learning Theory to Instruction
- or
- EDP 6301 Cognitive Psychology in Education 3
- EDP 6505 Human Development: Childhood and Adolescence
- or
- EDP 6506 Human Development: Adulthood and Aging 3
- EDF 5432 Measurement and Evaluation in Education
- or
- EDP 7058 Behavioral Intervention Research and Evaluation 3

Option 1: Learning and Instruction (9 credits)

- Select THREE of the following courses:
- EDP 6301 Cognitive Psychology in Education
 - EDP 6211 Educational Psychology: Principles and Applications
 - EDG 7362 Instruction: Theory and Research
 - EEX 6608 Applied Behavior Analysis in Education
 - EDP 6186 Social Development and Learning
 - EAB 5098 Proseminar in Behavior Analysis

Option 2: Individual Differences in Development (9 credits)

- Select THREE of the following courses:
- EDP 6505 Human Development: Childhood and Adolescence
 - EDP 6506 Human Development: Adulthood and Aging
 - DEP 5608 Theoretical Perspectives on Development
 - CHD 5266 Advanced studies in Child Development
 - DEP 5405 Proseminar in Adulthood and Aging
 - DEP 5056 Issues in Life-span Developmental Psychology
 - DEP 5069 Applied life-span Developmental Psychology
 - EAB 6707 Developmental Behavior Analysis

Option 3: Measurement and Evaluation (9 credits)

- Select THREE of the following courses:
- EDF 6212 Research Problems in Educational Psychology
 - MHS 6630 Program Evaluation in Counseling and School Psychology
 - EDP 7058 Behavioral Intervention Research and Evaluation
 - MHS 6200 Measurement and Appraisal in Counseling
 - CYP 6526 Psychological Methods of Program Evaluation
 - CLP 6437 Behavioral Assessment in Childhood
 - DEP 5796 Methods in Developmental Psychology
 - EDP 7977 Candidacy Research and Evaluation

Note: All DEP courses have DEP 3000 Human Growth and Development as prerequisite. All EDP courses have EDP 3004 Introduction to Educational Psychology as prerequisite. EHB 4601 Applied Behavior Analysis (or equivalent) is a prerequisite for EAB 6707.

Certificate and Add-On Certification Programs

The Department offers Professional Certificate Program in Specific Learning Disabilities, Emotional Disturbance, and Mental Retardation.¹ In order to meet the needs of 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, the University has established three Professional Certificate Programs:

Specific Learning Disabilities, Emotional Disturbance, and Mental Retardation. The entrance requirement is eligibility for or possession of a Florida Teaching Certificate in elementary education.

In the event a student enrolled in the Professional Certificate Program elects to apply course work taken toward meeting the requirements for a Master of Science Degree, the student must follow the stipulated entrance procedures for the Master's Degree program.

Specific Learning Disabilities

- ELD 4230 Curriculum for students with Learning Disabilities 3
- ELD 4240 Strategies for Teaching Students with Learning Disabilities¹ 3
- ELD 6323 Advanced Theory and Practice: Learning Disability 3
- EEX 6051 Education of Students with Exceptionalities 3
- EEX 6106 Acquisition of Speech and Language Skills 3
- EEX 6227 Educational Assessment of Students with Exceptionalities 3
- EEX 6608 Applied Behavioral Analysis in Education 3
- EEX 6771 Independent Living for Students with Exceptionalities 3

Emotional Disturbance

- EED 4212 Behavioral Approaches to Classroom Learning II 3
- EED 4243 Strategies for Teaching Students with Emotional Handicaps¹ 3
- EED 4244 Curriculum for Teaching Students with Emotional Handicaps 3
- EED 6226 Advanced Theory and Practice: Emotional Handicaps 3
- EEX 6051 Education of Students with Exceptionalities 3
- EEX 6106 Acquisition of Speech and Language Skills 3
- EEX 6227 Educational Assessment of Students with Exceptionalities 3
- EEX 6608 Applied Behavioral Analysis in Education 3
- EEX 6771 Independent Living for Students with Exceptionalities 3

Mental Retardation

- EEX 4601 Behavioral Approaches to Classroom Learning 3

EEX 6051	Education of Students with Exceptionalities	3	SDS 6700	Organization and Administration of School Counseling	3
EEX 6106	Acquisition of Speech and Language Skills	3	MHS 6200	Measurement and Appraisal in Counseling	3
EEX 6227	Educational Assessment of Students with Exceptionalities	3	MHS 5350	Educational- Vocational Counseling	3
EEX 6608	Applied Behavioral Analysis in Education	3	MHS 6511	Group Counseling	3
EEX 6771	Independent Living for Students with Exceptionalities	3	SDS 6784	School Law for Student Service Workers	3
EMR 4221	Curriculum for Teaching Students with Mental Retardation	3	MHS 6428	Cross Cultural Counseling	3
EMR 4362	Strategies for Teaching Students with Mental Retardation ¹	3	SDS 6800	Advanced Practicum in Counseling and Consultation (Prerequisite: All the courses listed above)	3
EMR 6852	Advanced Theory and Practice: Mental Retardation	3			

¹Extensive field work required.

Program for School Guidance and Counseling Certification

To provide a systematic curricula as a means of obtaining the Florida Guidance Counselor (PK-12) Certificate for those who already possess a master's degree in Education or Counseling and do not wish to pursue a second master's degree.

Admission Requirements

Application for admission is to be made to the Department of Educational Psychology Graduate Admissions Committee. The criteria for admissions includes: possession of a master's degree in education, counseling or other approved area, transcripts of all college credits, autobiographical form, and three letters of recommendation.

Required Program: (36)

EDF 6211	Psychological Foundations of Education	3
	or	
MHS 6802	Personality Theories	3
MHS 5400	Counseling Skills and Techniques	3
MHS 6410	Behavioral and Cognitive Modification Techniques in Counseling and Education	3
	or	
EEX 6051	Education of Students with Exceptionalities	3
SPS 6199	Family-School Consultation and Collaboration	3
SDS 6411	Counseling Children and Adolescents	3

Note: At the discretion of the program coordinator, a minimum of six semester hours of transfer credit may be used to satisfy these requirements.

Applications for advanced practica placement (MHS 6800) must have faculty advisor approval and be submitted to the office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester placement.

Educational Foundations and Professional Studies

John A. Carpenter, *Professor and Chairperson, Educational Foundations and International and Intercultural Development Education, and Higher Education*

Carlos M. Alvarez, *Associate Professor, International Development Education, Educational Psychology*

Erskine S. Dotin, *Professor, Educational Foundations, Politics of Education*

Miguel Angel A. Escotet, *Professor, Educational Foundations, International and Intercultural Development Education and Research*

Robert V. Farrell, *Associate Professor Educational Foundations, International Development Education*

Rosa Castro Feinberg, *Associate Professor, Educational Foundations, Bilingual Education/TESOL*

Delia Garcia, *Assistant Professor, Educational Foundations, Urban Education, TESOL*

I. Ira Goldenberg, *Professor, Educational Foundations and Urban Education*

Deborah Hasson, *Instructor, Educational Foundations, and Urban Education, and TESOL*

Patricia A. Killian, *Assistant Professor, Teaching English as a Second Language*

Aixa Perez-Prado, *Assistant Professor, Teaching English as a Second Language and Educational Foundations*

Colleen A. Ryan, *Associate Professor, Educational Psychology and Educational Foundations*

M.O. Thirunarayanan, *Associate Professor, Learning Technologies*

S.L. Woods, *Associate Professor, Educational Foundations, and General Methodology*

General Information

The Department is fully committed to two guiding missions of the College of Education: to support the preparation of educators, to pursue research in social, philosophical, multicultural and general methodological needs of schools and post-secondary institutions, and to provide technical assistance in multicultural, social and philosophical development in education. The Department oversees gradu-

ate programs and courses for students who are interested in working in various fields.

Master of Science

The Department of Educational Foundations and Professional Studies offers programs in:

International Intercultural Development Education
Teaching English to Speakers of Other Languages (TESOL)
Urban Education

Furthermore, it directs doctoral programs specialty tracks in International Intercultural Development Education, TESOL, Social and Philosophical Foundations of Education and Comparative Education.

The Department also coordinates the Foundations of Education courses and the Professional Education Core. It houses the Miami-Dade County Public School/FIU Urban Education Program, which is comprised of the Urban Education Certificate Program and the Master's Degree in Urban Education with specialty track options in Urban Education, Instruction in Urban Settings, Multicultural Education and TESOL and Multicultural/Bilingual Education.

All stated admission requirements are to be considered minimal. A student who meets these minimal requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Master of Science in International Development Education

The Master of Science degree in International Development Education (IIDE) is designed to provide graduate training to students interested in acquiring skills as specialists in educational development within the context of a changing society. The program places special emphasis on planning, management, research, and evaluation skills. Such skills are developed in relation to a specific area of educational specialization and with a special emphasis on understanding the influence of the social context of education on educational development and change.

Admission Requirements

To be admitted into the Master's degree program in International Intercultural Development Education

(IIDE), a student must: (a) hold a Bachelor's degree from an accredited institution or its equivalent for international students; (b) have a 3.0 GPA or higher during the last 60 semester hours of undergraduate study (or its equivalent for foreign students); or (c) have a combined score (verbal and quantitative) of 1000 or higher on the GRE (students must submit the GRE scores regardless of their GPA or degree); and/or (d) have a graduate degree from an accredited institution of higher learning; (e) in the case of foreign students whose first language is other than English, a minimum score of 550 on the TOEFL examination is also required; (f) submit two letters of recommendation, preferably from persons in the academic community who are familiar with the applicant's record and who are able to evaluate the applicants background, professional interest, and career goals; (g) submit a short essay of approximately 250 words concerning the applicants background, professional interests and goals in the area of International Development Education.

Degree Requirements

The Master's program requires the completion of a minimum of 36 semester hours of course work at the graduate level with a 3.0 GPA. A maximum of six semester hours of graduate work may be transferred to the program from other universities. The 36 semester hours are to be completed in accordance with the program curriculum.

Language Requirement

The student must demonstrate competency in the use of a modern language, other than English, prior to graduation. International students may demonstrate competency in their native language. Language courses will not count for credit toward program completion.

Required Program: (36 minimum)

The IIDE program blends together theoretical foundations and methodological perspectives. Graduate students are exposed to the role of the social, political, economic, scientific and cultural sectors in educational development. Research and analytical skills are provided to insure student's ability to define, gather, analyze and evaluate data for project management and decision-making. Planning and applied courses are designed to provide the professional competencies for

project development and evaluation, training programs and understanding current and future-oriented policy issues and problems in education.

Foundations of Education (6)

- EDF 6608 Social, Philosophical and Historical Foundations of Education 3
- EDF 6211 Psychological Foundations of Education 3

Social Context of Education and Development: (6)

- EDF 5812 National Education Systems: A Comparative Analysis 3
- EDF 5852 Educational Development Issues in Context: A Multidisciplinary Perspective 3

Educational Research and Evaluation Methods: (3)

- EDF 5481 Analysis and Application of Educational Research 3

Educational Policy, Planning, Implementation/Management and Evaluation Skills: (9)

- EDF 6636 Intercultural Studies: A Qualitative and Quantitative Analysis 3
- EDF 6654 Macro- and Micro-Planning in Education 3
- EDF 6850 International Development Education: Contemporary Planning Models and Techniques 3

Electives: (6)

The student will select, with advisor's permission, a minimum of six semester hours from the following courses:

- EDF 5287 Instructional Technology: Systems Approach 3
- EDF 6651 IDE: Educational Technology, Planning and Assessment 3
- EDG 5707 Cross-Cultural Studies in Education 3
- EDF 6906 Directed Study in IDE 3
- EDF 5820 Latin American Ed.: Historic and Contemporary Overview 3
- EDF 5821 African Educational Systems: A Comparative Approach 3
- EDF 5850 Intercultural Ed.: National and International Perspectives 3

- EDF 5851 Socio/Cultural Conflict in Educational Change 3
- EDF 5955 Field Study Abroad 3-6
- EDF 6658 Selected Topics: International Development Education, Current Policy Issues and Problems 3

Thesis Option (3-9 credit hours)

The final curricular requirement is a thesis which facilitates the integration of theoretical and practical knowledge acquired throughout the program. The thesis topic is selected and developed in consultation with a faculty advisor and an ad-hoc thesis committee. The thesis demonstrates the student's ability to apply analytical, conceptual and technical skills to a specific educational development problem of domestic, regional or international significance.

Non-Thesis Option (by petition only)

A student shall complete 36 credit hours of course-work, approved by her or his supervisory committee. The candidate is required to write a comprehensive/interdisciplinary paper to test the student's general ability in integrating the disciplinary sources of International Intercultural Development Education. The topic for the paper is given near the end of the candidate's final semester by a committee composed of three faculty members appointed by the IIDE Graduate Program/Department. The student has one week to accomplish the task. If the committee considers the paper insufficient, the student may rewrite the paper only once until one semester has elapsed or until additional work prescribed by the committee is completed.

Dual Specialties

Students have the opportunity to gain basic expertise in other fields such as: 1) economics, sociology, anthropology, international relations, business administration, etc. 2) adult education, administration and supervision, community college and higher education, curriculum and instruction; 3) comparative education; 4) intercultural communication and systems consultation; 5) the social context of education and development; or 6) any other field of interest approved by the faculty advisor. The student shall complete 24 hours in IDE and he/she will select, with advisor's permission, a minimum of 12 semester hours from courses available in one of the following areas:

A content area of educational specialization

Comparative/Intercultural Education System's Consultation and Human Resources
Social, Cultural, Technological, Scientific, Economic and/or Political Context of Development
Courses in any other area of special interest to the student.

Master of Science in Teaching English to Speakers of Other Languages (TESOL)

The Master of Science in TESOL is designed to provide specialized training and content knowledge for teachers of all levels of ESOL, K through 12, adult education and community college education. Students who are state certified teachers may include the five courses required for the Add-on ESOL Endorsement as part of the Master's program.

Admission Requirements

To be admitted into the Master's degree program, a student must: a) hold a bachelor's degree from an accredited university or college; b) have a 'B' (3.0) average or higher in all junior and senior year course work for the bachelor's degree; or have a combined score (verbal and quantitative) of 1000 or higher on the Graduate Record Examination; or hold a master's degree from an accredited university or college; in any case the student must present a GRE score. In the case of foreign students whose first language is other than English, a score of 550 on the TOEFL examination and a score of 5 on the Test of Written English (TWE) are also required. Admission to the program is contingent upon departmental approval.

Degree Requirements

The Master of Science degree consists of 36 semester hours. A maximum of six semester hours may be transferred into the program from outside the University, subject to the approval of the major advisor. A maximum of six semester hours of graduate level courses taken as an undergraduate may be included in the program provided they have not been used to satisfy degree requirements for an undergraduate program.

This program does not meet requirements for initial teacher certification by the Florida Department of Education.

Prerequisite

Introduction to Linguistics is the prerequisite for the Linguistics courses

in the program. It may be satisfied with LIN 3010, LIN 3013, or LIN 5018.

Required Program: (36)

Professional Education: (9)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6608	Social/Philosophical/Historical Foundations of Education	3
EDP 6211	Psychological Foundations of Education	3

Program Courses: (18)

TSL 5142	Curriculum Development in ESOL	3
TSL 5371	Special Methods of TESOL	3
TSL 5938	Principles of ESOL Testing	3
TSL 6908	Field Component (structured field experience)	3
LIN 5211	Applied Linguistics	3
LIN 5501	English Syntax	3

Electives: (9)

Students will choose nine semester hours according to their needs, with the approval of their advisor. To meet state ESOL requirements, certified teachers (K-12) need to include in their electives the following courses:

TSL 5245	Developing ESOL Language and Literacy	3
EDG 5707	Cross Cultural Studies	3

Graduation Requirements

To receive the Master of Science degree in TESOL, the student must complete the required 36 semester hours of course work with a minimum 'B' or 3.0 grade point average and no more than two 'C' grades in required courses.

Peace Corps Master's International Program (MIP) in Teaching English to Speakers of Other Languages (TESOL)

The Peace Corps Master's International Program in Teaching English to Speakers of Other Languages is designed to provide specialized training and content knowledge to teachers in foreign secondary- and university-level English programs, English teacher training programs, and volunteer and development activities in general.

Specialty Track #1: Peace Corps Master's International Program in TESOL (36)

Prerequisites

Candidates for the MIP in TESOL must be US citizens and have applied to and been nominated by Peace Corps or be interviewed at FIU by the Peace Corps campus representative.

Introduction to Linguistics (3 credits) is the prerequisite for the linguistics courses in the program. It may be satisfied with LIN 3010, LIN 3013, or LIN 5018 or other similar courses.

Required Program: (36)

Professional Education: (9)

EDF 5481	Analysis and Application of Educational Research	3
EDP 6211	Psychological Foundations of Education	3
EDF 6608	Social/Philosophical/Historical Foundations of Education	3

Program Courses: (24)

TSL 5371	Special Methods of TESOL	3
TSL 5938	Principles of ESOL Testing	3
TSL 5142	Curriculum Development in ESOL	3
TSL 6350	Applied English Grammar	3
TSL 6908	Field Component ¹ (structured field experience)	3
EDG 5707	Cross-Cultural Studies ¹	3
LIN 6937	Applied Phonetics	3
LIN 5717	Language Acquisition	3

¹These two courses will be taught while in Peace Corps service and completed on FIU's campus after students return from their assignments abroad.

Electives: (3)

Students will choose three semester hours according to their needs, with the approval of their advisor.

Graduation Requirements:

To receive the Peace Corps Master's International in Teaching English to Speakers of Other Languages, the student must complete the required 36 semester hours of course work with a minimum of "B" or 3.0 grade point average with no more than two "C" grades in required courses and serve 27 months of assignments as a Peace Corps volunteer.

Master of Science in Urban Education

The Master of Science in Urban Education is a program designed to provide specialized knowledge and practice in areas related to urban/multicultural contexts. It aims at enhancing the effectiveness of teachers serving in diverse urban settings. The program represents a collaboration among the Miami-Dade County Public schools, the United Teachers of Dade (UTD) and the College of Education. It places special emphasis on developing the skills of teachers as researchers by engaging in action research projects at individual school sites. The Master's program requires the completion of 36 semester hours of course work at the graduate level with a minimum 3.0 GPA. A maximum of six graduate hours may be transferred from another institution, upon approval from an advisor.

Admission Requirements

To be admitted into the Master's degree in Urban Education, a student must: (a) hold a Bachelor's degree from an accredited institution or its equivalent; (b) have a 3.0 GPA or higher during the last 60 semester hours of undergraduate study; or (c) have a graduate degree from an accredited institution of higher learning. Students must select a specific track, as delineated below:

Program Core (9)

EDP 6211	Psychological Foundations of Education	3
EDF 6608	Social and Philosophical, and Historical Foundations of Education	3
EDF 6636	Intercultural Studies: A Qualitative and Quantitative Studies	3

Specialty Track #1: Urban Education (15)

EDE 5267	Education of the Child in Urban Society	3
EDF 5851	Socio/Cultural Conflict in Education	3
EDF 6689	Urban Education: Defining the Field	3

Guided Electives in Urban Education (6)

Six hours of electives may be taken with approval of academic advisor.

Interdisciplinary Electives (select one) (3)

EDG 5707	Cultural/Cross-cultural Studies in Education	3
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EDG 6631 Multicultural Education:
Defining the Field 3
Elective as approved by the academic
advisor

Research or Development Project

Core (9)

EDF 5481 Analysis and
Application of
Educational Research 3

EDF 6925 Special Topics in Urban
Education: Qualitative
Research in Urban
Education 3

EDF 5941 Practicum: Urban
Elementary School 3
or

EDG 5941 Practicum: Urban
Secondary School 3

Three hours of electives may be taken
in lieu of a course above with approval
of academic advisor.

**Specialty Track #2: Multicultural
Bilingual Education (15)**

EDF 5881 Foundations in
Bilingual Education 3

EDG 5757 Curriculum in Bilingual
Education 3

FLE 4151 Bilingual SL
Curriculum and
Organization 3

FLE 4871 Teaching Spanish
Speakers of Spanish 3

EDG 5942 Multicultural Seminar
and Practicum in Urban
Education 3

Six hours of electives may be taken in
lieu of courses above with approval of
academic advisor.

**Interdisciplinary Electives: (select
one) (3)**

EDF 6689 Multicultural Education:
Defining the Field 3

Elective as approved by the academic
advisor 3

**Specialty Track #3: Instruction
in Urban Settings (16)**

EDG 5414 Instructional Strategies
for Classroom Teacher 3

EDG 5414L Instructional Strategies
Lab 1

EDG 5325 Analysis of Teaching 3

EDG 6215 Application of Learning
Theory to Instruction 3

EDF 5287 Instructional
Technology: Systems
Approach 3

Guided electives in Instruction 3

**Interdisciplinary Electives: (select
one) (3)**

EDF 5216 Effective Learning in
the Classroom 3

EDF 5707 Cultural/Cross- Cultural
Studies in Education 3

EDF 6444 Non-biased Assessment
of the Culturally
Different 3

Any elective as approved by the the
academic advisor 3

**Specialty Track #4: Multicultural
TESOL: (15)**

TSL 5371 Special Methods of
TESOL 3

TSL 5142 Curriculum
Development TESOL 3

TSL 5938 Principles of ESOL
Testing 3

TSL 5245 Developing ESL
Language and Literacy 3

EDF 5942 Multicultural Seminar
and Practicum in Urban
Education 3

Three hours of electives may be taken
in lieu of a course above with approval
of academic advisor.

**Specialty Track #5: Learning
Technologies: (18)**

This track is intended for educators
who wish to learn how to use various
technologies such as computers,
scanners, digital cameras, CD-ROMs,
multimedia, videotapes, the Internet,
and the World Wide Web (WWW) to
facilitate learning, teaching, adminis-
tration and professional development.

In addition to the 18 hours of the
Urban Education Program Core
Courses, students will complete the
following six courses for a total of 36
credit hours.

EME 6405 Computers in the
Classroom 3

EME 6406 Microcomputers as
Teaching Tools 3

EME 6412 Educational Courseware
Evaluation and
Development 3

EME 5602 Multimedia in the
Classroom 3

EME 5945 Special Topics in
Computer Education 1-3

EME 6905 Directed Study:
Computer Education 3

(Note: Six hours of electives may be
completed in lieu of the courses EME
5945 and EME 6905 with prior
approval from the academic advisor).

**Interdisciplinary Electives: (select
one) (3)**

EDG 5707 Cultural/Crosscultural
Studies in Education 3

EDG 6631 Multicultural Education:
Defining the Field 3

Any elective as approved by the
academic advisor.

**Doctor of Education Degree
Specializations in Internation-
al and Intercultural Develop-
ment Education**

The Department of Educational Founda-
tions and Professional Studies in
cooperation with the Department of
Educational Leadership and Policy
Studies offers four doctoral specialty
tracks (consult program faculty):

1. Adult Education and Human Re-
source Development: International and
Intercultural Development Education
Specialization. (code: 0256)

2. Curriculum and Instruction: Inter-
national and Intercultural Development
Education Specialization. (code: 0200)

3. Educational Administration and
Supervision: International and Inter-
cultural Development Education
Specialization.

4. Higher Education: International
and Intercultural Development
Education Specialization. (code: 0255)

Admission Requirements

Applicants to the program must submit
the following records and documents to
the Office of Admissions:

- A completed Application for
Graduate Admission with a non-
refundable processing/application
fee of \$20.00.
- Official transcripts of all higher
education institutions attended.
- An official copy of the Graduate
Record Examination scores.
- Foreign students whose native
language is not English must
submit an official copy of TOEFL
exam score.

Applicants must also submit the
following documents directly to the
Coordinator of Doctoral Programs in
the College of Education:

- ♦ Three letters of recommendation,
preferably from persons in the
academic community who are
familiar with the student's record
and who are able to evaluate the
applicant's preparation for
doctoral study.
- ♦ A current resume/curriculum vita.
- ♦ A statement that sets forth the
applicant's career goals and
relates these goals to the comple-
tion of the doctoral program.

Applicants should also meet the
following criteria:

- Hold a Master's degree or, for
foreign students, its equivalent
from an accredited institution.

- Have a “B” average, a 3.0 GPA of a possible 4.0, or better during the last two years of upper level work in undergraduate study (or its equivalent for foreign students); and/or a GPA of 3.25 in all graduate work attempted.
- Have a combined verbal and quantitative score of 1000 or higher on the Graduate Record Examination.
- Have a TOEFL score of 550, for non-native English speakers.
- Exceptions to one or more of the stated criteria may be granted provided the applicant can provide compelling reasons and evidence.

Required Courses

International and Intercultural Development Education Core

Those holding a Master’s Degree in International and Intercultural Development Education or Comparative Education: (18 credit hours)

ADE 7571	Consulting in AE/HRD	3
EDF 5851	Social/Cultural Conflict In Educational Change	3
EDF 6651	IDE: Educational Technology, Planning, Assessment	3
EDF 6658	Selected Topics in IDE: Current Policy Issues	3
EDF 7656	IDE: Innovative Approaches in Educational Planning	3
EDF 7940	Dissertation Seminar in IIDE	3

Those with alternate Master’s Degree: (21 credit hours).

EDF 5812	National Ed.Systems: A Comparative Analysis	3
EDF 5852	Ed. Development Issues in Context: A Multidisciplinary Approach	3
EDF 6636	Intercultural Studies: Quantitative and Qualitative	3
EDF 6654	Macro and Micro Planning In Education	3
EDF 6850	IDE: Contemporary Planning Models and Techniques	3
EDF 7656	IDE: Innovative Approaches in Educational Planning	3
EDF 7940	Dissertation Seminar in IIDE	3

Research and Statistics Core (9 credit hours)

STA 6166	Statistical Methods in Research	3
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EDF 6486	Research Methods in Education (prerequisite: EDF 5481)	
<i>The student takes one of the following:</i>		
EDF 6403C	Quantitative Foundations of Educational Research	3
EDF 6475	Qualitative Foundations of Educational Research	3

Cognate Area and Guided Electives

A coherent set of courses related to the doctoral tracks/IIDE (credit hours: between 30-36 cognate and guided electives)

If a student has completed a Master’s degree in the cognate field at another institution, he or she must take at least two courses in the same cognate field at FIU to complete the requirement. The coherency of the cognate must be evident in the relevance of applicability to the student’s major area of study.

Required Courses in the Specific Doctoral Content Area Core (15-18 credit hours)

Adult Education and Human Resource Development (15 credit hours)

ADE 5081	Introduction to AE/HRD	3
ADE 5383	Instructional Analysis in AE/HRD	3
ADE 5385	Adult Teaching and Learning	3
ADE 6180	Organizational and Community Processes In AE/HRD	3
ADE 7772	Review of Research in AE/HRD	3
EDF 7937	Advanced Topics in the Soc. Found. of Education	3
EDP 7008	Educational Psychology: Advanced Applications	3

Curriculum and Instruction Doctoral Core (18 credits)

EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Intruction: Theory and Research	3
EDG 7665	Seminar in Curriculum	3
EDF 7934	Seminar in the Social Foundations of Education	3
EDF 7937	Advanced Topics in the Soc. Found. Of Education	3

EDP 7008	Educational Psychology: Advanced Applications	3
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Higher Education (15 credits)

EDH 7065	Higher Ed: Philosophical/Historical Perspectives	3
EDH 7204	Higher Education: Community College	3
EDH 7225	Higher Education: Development Programs	3
EDH 7307	Higher Education: Instructional Methods	3
EDG 7222	Curriculum: Theory and Research	3
EDF 7937	Advanced Topics in the Soc. Found. of Education	3
EDP 7008	Educational Psychology: Advanced Applications	3

Higher Education with Concentration in Administration (18 credits)

EDA 7550	Administration in Higher Education	3
EDG 7222	Curriculum: Theory and Research	3
EDH 7052	Student and Support Services	3
EDH 7065	Higher Ed: Philosophical/Historical Perspectives	3
EDH 7204	Higher Education: Community College	3
EDH 7xxx	Higher Education Finance	3
EDF 7937	Advanced Topics in the Soc. Found. Of Education	3
EDP 7008	Educational Psychology: Advanced Applications	3

Educational Administration and Supervision Doctoral Core (18 credits)

EDA 7069	Educational Policy	3
EDA 7013	Theories of Educational Administration	3
EDA 7233	School Law II	3
EDA 7288	Politics of Education	3
EDF 7937	Advanced Topics in the Soc. Found. Of Education	3
EDP 7008	Educational Psychology: Advanced Applications	3

Admission To Candidacy

To be admitted to candidacy, the applicant must:

1. Meet Academic Residency Requirements of 18 credit hours in one Calendar Year.
2. Pass a comprehensive examination covering the major field, cognate, and Doctoral required core. The examination will be taken at the completion of the student's course work and with the consent of the student's Doctoral program advisor.
3. Complete the research and statistics requirements satisfactorily.
4. Complete, or substantially complete, the Doctoral Core and the IIDE Core.

Dissertation (24 credit hours)

The dissertation is to be an original contribution to knowledge in the area of International/Intercultural Development Education and content area core as required. The student is expected to complete the dissertation within five (5) years from the date of advancement to candidacy. Continuous enrollment of six (6) credit hours is required once dissertation study has begun.

Language Requirement

Prior to graduation, students must demonstrate competency, primarily in reading comprehension, in the use of a modern foreign language, other than English. Foreign students may demonstrate competency in their native language. Language courses will not count for credit toward program completion.

Doctor of Education Degree Program with track in Teaching English to Speakers of Other Languages

The Department of Educational Foundations and Professional Studies in cooperation with the Department of Educational Leadership and Policy Studies offers a doctoral specialty track in Teaching English to Speakers of Other Languages (TESOL).
(consult program faculty).

Add-on Endorsement in ESOL

Individuals who currently hold or are working toward teacher certification in Elementary, English, Foreign Language or Special Education, may receive the Add-on Endorsement in ESOL by completing the following set of courses:

Required Courses

EDG 5707	Cultural and Cross-Cultural Studies	3
TSL 5142	Curriculum Development in ESOL	3
TSL 5245	Developing ESOL Language and Literacy	3
TSL 5371	Special Methods of TESOL	3
TSL 5938	Principles of ESOL Testing	3

Health, Physical Education and Recreation

Robert M. Wolff, Professor, and Chairperson, Parks and Recreation Management and Sport Management

Laura Blitzer, Associate Professor, Physical Education

Judith A. Blucker, Professor, Physical Education, and Vice Provost, Budget

Charmaine DeFrancesco, Associate Professor, Physical Education and Sport Management

Daniel L. Dustin, Professor, Parks and Recreation Management

Dan K. Hibbler, Assistant Professor, Parks and Recreation Management

Richard Lopez, Associate Professor, Exercise Physiology

Alexis McKenney, Assistant Professor, Therapeutic Recreation

David Sandler, Instructor, Strength and Conditioning

Debra R. Trigoboff, Instructor, Athletic Training

Bill Yongue, Assistant Professor, Elementary Physical Education

The Department of Health, Physical Education, and Recreation offers programs leading to the Master of Science degree in Health Education, with a track in Exercise Physiology; Parks and Recreation Management, with tracks in Leisure Service Management and Recreational Therapy; and Physical Education with tracks in Physical Education Teacher Certification and Sports Management.

The program requirements and descriptions listed below are subject to change without notice. Program faculty should be consulted for academic advisement.

All stated admission requirements are subject to change and should be considered minima. A student who meets these minima requirements is not automatically assured admission. It is the responsibility of the student to ensure that he/she has met the requirements.

Master of Science in Exercise and Sport Science

Exercise Physiology Specialization

The graduate specialization in exercise physiology is designed to prepare individuals to work in the fields of adult fitness, cardiac rehabilitation, sports conditioning and sports

medicine in a supervisory capacity. The program focuses on the physiological effects of exercise and training with application to the improvement of health and functional capacity of healthy individuals, as well as hospitalized and non-hospitalized individuals. The program emphasizes the role of exercise in prevention, diagnosis, rehabilitation, and performance enhancement.

The program enables students to develop the competencies required by the American College of Sports Medicine for certification as an Exercise Specialist, a Health Fitness Director, and a Program Director. The program also prepares students for the National Strength and Conditioning Association's certified Strength and Conditioning Specialist certification. We are recognized by the National Strength and Conditioning Association as being an institution that provides and prepares individuals for the Strength and Conditioning Profession. Provisions will be made to enable those students entering the program without an exercise test technologist certification and/or a fitness certification to develop those prerequisite competencies.

Admission Requirements

An applicant for admission to graduate study must meet the existing criteria set forth by the Florida Board of Regents. Presently, these are a 3.0 GPA in the last 60 credits of the undergraduate program, or a combined score of 1000 on the GRE (verbal and quantitative sections), or completion of a master's degree program at an accredited university. All applicants must submit a GRE test score.

Prerequisite Classes

One class in each of the following areas: exercise physiology, kinesiology, anatomy, physiology, and nutrition.

Degree Hours: (30)

Required Cores Courses (18)

The program offers four strands – a cardiac rehabilitation strand, an adult fitness strand, a sports conditioning strand and a sports medicine strand. A strand is a three course sequence which prepares a student to work in a supervisory capacity within a specialty area in exercise and sport sciences. Each student is required to complete a minimum of two strands in partial fulfillment of his/her requirements for a

masters degree in exercise and sport sciences.

Internship Requirement (0-6)

Most students will be required to enroll in a minimum of three credits of internship. The internship setting must provide the student with an opportunity to apply what he/she has learned in at least one of the two strand areas selected. A student may enroll in six credits of internship, if he/she wants to intern in both of the strand areas he/she selected. In special circumstances, the internship requirement may be waived.

Electives (3-6)

Students will be required to enroll in three (3) to six (6) credits of electives. Those who choose to enroll in three credits of internship must enroll in six credits of electives, while those enrolling in six credits of internship must enroll in three credits of electives. (In the special event where the internships is waived, a student should enroll in nine credits of electives). The electives may be taken in either of the strand areas. All electives should be approved by the advisor in advance.

Research Requirement (3)

One advisor approved course in research. One recommendation is EDF 5481, offered by the College of Education.

Class Sequence

Fall Semester

PET 5387	Exercise Test Technology <i>(or elective for students with ACSM certification)</i>
PET 5115	Health/Fitness Instructor <i>(or elective for students with ACSM certification)</i>
EDF 5481	Analysis and Application of Educational Research <i>(or approved alternative)</i>
PET 4383	Evaluation in Exercise Physiology
PET 4xxx	Personal Training
PET 4389	Advanced Concepts in Strength and Conditioning
PET 5931	Special Topics in Exercise Science
PET 6940	Internship in Exercise Physiology

Spring Semester

PEP 5116	Exercise Specialist
PET 5xxx	Exercise Prescription for Special Populations
PET 5xxx	Comprehensive Conditioning of Elite Athletes
PET 5625	Sports Medicine

PET 6940	Internship in Exercise Physiology	LEI 5907	Directed Study in Parks and Recreation Management	3
PET 4xxx	Fitness for Older Adults		Advised Electives	15
Summer Semester			A student who did not complete a Parks, Recreation, Leisure or Sports oriented internship/field experience during his or her undergraduate degree curriculum will be required to take:	
PET 6775	Health/Fitness Director	LEI 6922	Supervised Field Experiences in Parks and Recreation	6-9
PET 6785	Program Director			
PET 6940	Internship in Exercise Physiology			
HUN 6248	Sports Nutrition			
PET 5xxx	Advanced Analysis of Sport Movement			

Master of Science in Parks and Recreation Management

The graduate program in Parks and Recreation Management is planned to provide advanced preparation for administrative and supervisory level positions within a leisure services delivery system and recreational therapy services. The program includes electives which give flexibility regarding an individual's specific career goals as a future practitioner in parks and recreation management or recreational therapy services.

The Recreational Therapy track is designed to prepare direct service and administrative personnel engaged in recreational therapy service delivery.

Admission Requirements

To enter the program in Parks and Recreation Administration, a student must have a 3.0 GPA in upper division work or score 1000 or higher on the Graduate Record Examination, possess a bachelor's degree, and have appropriate undergraduate preparation in recreation or recreational therapy.

Degree Program: (30-36)

Required Core: (12)

LEI 5510	Program Administration in Parks, Recreation and Sport	3
LEI 5595	Seminar in Parks, Recreation, and Sports Management	3
LEI 5605	Philosophical and Social bases of Parks and Recreation	3
STA 6166	Statistical Methods in Research I or	3
EDF 5481	Analysis & Application	3

Select from one of the following two tracks: (15-21)

Leisure Service Management Track

Therapeutic Recreation Core (3-12)

LEI 5716	Program Planning in Therapeutic Recreation	3
LEI 5719	Client Assessment, Evaluation, and Documentation	3
LEI 6725	Administrative Aspects of Therapeutic Recreation	3
LEI 6726	Problems, Concepts Issues and Trends in Therapeutic Recreation	3

Thesis Option:

LEI 6971	Thesis: Therapeutic Recreation	6
	Advised Electives	3
	Total Hours Thesis Option:	30

Non-Thesis Option:

LEI 5907	Individual Study in Parks and Recreation Management	3
	Advised Electives	12
	Total Hours Non-Thesis Option:	36

Students not currently certified as Therapeutic Recreation Specialists must also register for the following course as part of their overall program:

	Prerequisites: Individuals not currently certified at the professional level (CTRS) by the National Council for Therapeutic Recreation Certification will be required to take the following content courses for completion of the Therapeutic Recreation graduate curriculum:	
	Introduction to Therapeutic Recreation	
	Disabling Conditions and T.R. Services	
	Recreational Therapy Interventions	
	Abnormal Psychology	
	Anatomy	
	Physiology	
	Human Growth and Development	
LEI 6922	Supervised Field Experiences in Parks and Recreation	6-9

Master of Science in Physical Education

The Master of Science degree program in Physical Education is designed to provide advanced preparation for teachers of physical education. Applicants must hold or qualify for Florida Teacher Certification in Physical Education and must satisfy requirements for scholastic aptitude as determined by the graduate admission standards: GPA of 3.0 or 1000 on the GRE, or both. Applicants must submit GRE scores.

Degree Hours: (33)

Professional Education: (9)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6608	Sociological, Philosophical, and Historical Foundations of Education	3
EDP 6211	Educational Psychology: Foundations and Application	3
PET 5206	Youth Sports	3
PET 5216	Sports Psychology	3
PET 5238	Motor Learning	3
PET 5256	Sociology of Sport	3
PET 5426	Curriculum in Physical Education	3
	or	
PET 5436	Physical Education Curriculum	3
PET 5925	Practicum in Physical Education	3
PET 6597	Survey of Research in Physical Education and Sports	3
	Electives	3

Sport Management Track

The purpose of this track is to provide an option for persons seeking a master's degree in an allied (non-teaching) career in physical education. This degree program would primarily be for persons who do not presently hold Florida teaching certification credentials. This degree does not provide teacher certification for the degree recipients. Examples of potential student clientele would include all foreign and American college graduates with bachelor's degrees in physical education, sports science, business, recreation, and other related areas.

Admission Requirements

Students must hold a bachelor's degree from an accredited university and have a GPA of at least a 3.0 or 1000 on the

GRE. The published university requirements for admission into the master's degree programs must be met. Students who do not have an undergraduate major in physical education or a related area are responsible for meeting the prerequisites for any course listed in the program's curriculum. A program advisor must be consulted regarding completion of degree requirements.

Degree Hours: (33)

STA 6199	Statistical Methods in Research	3
	or	
EDF 5481	Analysis and Application	3
PET 5216	Sports Psychology	3
PET 5256	Sociology of Sport	3
LEI 6577	Leisure Service Marketing	3
PET 6944	Supervised Field Experience	3-6
PET 6597	Survey of Research in Physical Education and Sports	3
LEI 5503	Law and Liability in Parks and Recreation and Sports	3
LEI 5510	Program Administration Parks Recreation and Sports	3

Advisor approved electives: (3-6)

Please consult with an advisor for appropriate courses. Examples of approved electives are:

LEI 5440	Program Development in Parks, Recreation & Sport
PET 5206	Youth Sports
MAN 6501	Operations Management
MAN 7275	Organizational Behavior

Subject Specializations

Mohammed K. Farouk, *Associate Professor, Social Studies/Global Education, Director, Global Awareness Program and Chairperson*

Arnhilda Badia, *Associate Professor, Modern Language Education*

David Y. Chang, *Professor, Art Education*

Frank DeVarona, *Visiting Associate Professor, Social Studies Education*

Gail P. Gregg, *Associate Professor, English Education*

Frank T. Hammons, *Associate Professor, Vocational Industrial Education*

Zhonghong Jiang, *Associate Professor, Mathematics Education and Computer Education*

Luis A. Martinez-Perez, *Associate Professor, Science Education*

C. Edwin McClintock, *Professor, Mathematics Education and Computer Education*

Dominic A. Mohamed, *Associate Professor, Vocational Administration and Supervision, Vocational Education*

Sandra Poirier, *Visiting Instructor, Home Economics Education*

Linda Spears-Bunton, *Associate Professor, English Education*

M.O. Thirunarayanan, *Learning Technologies*

Robert Vos, *Associate Professor, Learning Technologies*

The Department of Subject Specializations offers graduate programs leading toward the Master of Science, the Education Specialist, and the Doctor of Education degrees.

Additionally the department offers Alternate Masters Tracks of many of its programs for students who do not hold a bachelors degree in education. These programs lead to State of Florida teacher certification.

Masters of Science Programs

- Art Education
- English Education
- Learning Technologies
- Mathematics Education
- Modern Language Education
- Music Education (see College of Arts & Sciences, School of Music)
- Science Education: Biology, Chemistry, and Physics
- Social Studies Education
- Technology Education
- Vocational Home Economics Education
- Home Economic Education Track (*non-school based*)
- Vocational Administration and

- Supervision
- Vocational Industrial Education
- Health Occupations Education Track

Doctoral Programs

Curriculum and Instruction

Specializations in:

- Art Education
- English Education
- Modern Language Education
- Science Education
- Social Studies Education

Vocational and Technical Educational Leadership (*a track of the Adult Education and HRD program*)

Certificate and add-on

Certification Programs

Graduate Professional Certificate-Health Occupations Education

All stated admission requirements are to be considered minima. A student who meets these minima requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Master of Science Degree Programs

Applicants for admission to most Master's programs in Education must hold or qualify for Florida teacher certification in the appropriate area. All applicants must also satisfy Board of Regents admission requirements. A GPA of 3.0 in the last 60 semester hours of upper division undergraduate study or 1000 (total of verbal and quantitative) on the Graduate Record Examination (GRE). Applicants admitted with a pending GRE score must submit test score within one semester to be fully admitted or become a candidate for graduation. All applicants, regardless of GPA, must submit GRE score.

Art Education

Degree hours: (42)

Education, including Art Education: (21)

- | | | |
|----------|--|---|
| EDF 5481 | Analysis and Application of Educational Research | 3 |
| EDF 6211 | Psychological Foundations of Education | 3 |
| EDF 6608 | Social, Philosophical, and Historical Foundations of Education | 3 |
| ARE 6140 | Curriculum and Instruction in Art | 3 |

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|-------------|---|----|
| ARE 6262 | Organization and Coordination of School and Community Art Programs | 3 |
| ARE 6746 | Seminar in Art Education: Contemporary Issues and Research | 3 |
| ARE 6925-29 | Workshop in Art Education | 6 |
| EDE 6205 | Select one of the following:
Curriculum Design for Childhood Education | 3 |
| ESE 6215 | or
Secondary School Teaching Field | 3 |
| EEX 6051 | or
Education of Students with Exceptionalities | 3 |
| EDS 6050 | or
Supervision in Education | 3 |
| EDF 5955 | or
Field Study Abroad | 3 |
| | Fine Arts | |
| | Art History | 3 |
| | Studio Art (Three semester hours credit for each studio course) | 12 |
| | English Education | |
| | Degree hours: (36) | |
| EDF 5481 | Analysis and Application of Educational Research | 3 |
| EDF 6211 | Psychological Foundations of Education | 3 |
| EDF 6608 | Social, Philosophical, and Historical Foundations of Education | 3 |
| ESE 6215 | Secondary School Curriculum | 3 |
| LAE 6339 | Teaching English in the Secondary School | 3 |
| LAE 6935 | Seminar in English Education | 3 |
| LAE 5426 | Multicultural Perspectives in Language and Literature | 3 |
| | or | |
| LAE 5465 | Adolescent Literature | 3 |
| | Teaching field: English | 15 |
| | Mathematics Education | |
| | Degree hours: (33) | |
| EDF 5481 | Analysis and Application of Educational Research | 3 |
| EDF 6211 | Psychological Foundation of Education | 3 |

EDF 6608	Social, Philosophical and Historical Foundations of Education	3
MAE 5655	Computers in Mathematics Education	3
MAE 6336	Teaching Mathematics in the Secondary School	3
MAE 6899	Seminar in Mathematics Education	3
ESE 6215	Secondary School Curriculum	3
Teaching Field: Mathematics		15

Modern Language Education

Prerequisites

One course in general linguistics or the successful completion of LIN 3010 or LIN 3013.

Degree hours: (33)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
FLE 6336	Teaching Second Language in the Secondary School	3
FLE 6938	Seminar in Second Language Testing	3
Teaching Field: Modern Language		15
Grammar/Composition/Syntax		3
(Specialize in language when possible)		
Culture/Civilization		3
(Specialize in culture of target language when possible)		
Linguistics		3
(Specialize in language when possible; course in phonology or phonetics preferred)		
Literature (in the target language)		3
Applied Linguistics		3

Field Component: (3)

FLE 5908	Supervised Field Experience	3
or		
FLE 6925	Special Topics in Second Language Education	3

Music Education

(see College of Arts and Sciences, School of Music)

Science Education

Degree hours: (36)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6211	Psychological Foundations of	

EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
ESE 6215	Secondary School Curriculum	3
SCE 6635	Teaching Science in the Secondary School	3
SCE 6933	Seminar in Science Education	3
Teaching Field: Science		12

Biology or chemistry or physics or courses from the following areas with approval of advisor: biology, chemistry, physics, geology, and environmental sciences. (For Middle School Teachers).

Advisor Approved Electives 6

Social Studies Education

Degree hours: (36)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
SSE 6633	Teaching Social Studies in the Secondary School	3
ESE 6215	Secondary School Curriculum	3
SSE 6939	Seminar in Social Studies Education	3
Teaching Field: Social Studies, Social Science, History		12
SSE 4380	Global Perspectives	3
(required if not already taken as part of baccalaureate degree)		
Advisor Approved Elective		3

Master of Science:

Alternate Track

The Alternate Track modifies the existing master's degree programs to accommodate candidates with a baccalaureate degree appropriate to the certification area but without certification and are seeking entry into the teaching profession. This alternate track is no less rigorous than the existing master's degree program, but includes courses which provide the necessary background in professional education together with the master's level academic course work.

Entry requirements include a bachelor's degree or a strong minor (30 hours with a 3.0 or higher in the major subject area) in a certifiable teaching area such as the following: Art

Education, English Education, Mathematics Education, Modern Language Education, Music Education, Science Education, Social Studies Education and a minimum 3.0 cumulative GPA for the two most recent years of study or a combined GRE score of 1000. In either case, the GRE score must be submitted. In addition to the minimum GPA or the combined GRE score, or both, the applicant must receive an affirmative recommendation from the designated Program Leader, Dean of the College, or his designee following a personal interview.

This degree program requires a minimum of four semester sequence of full-time study which includes two Summer Terms, a Fall and a Spring Term and will consist of 45-48 semester hours, depending on each student's previous academic preparation.

Alternate Track Requirements

All students admitted to this track will complete the following courses as well as the graduate program courses in each of the chosen fields.

EDF 5481	Analysis and Application of Educational Research	3
EDF 5517	Education in American History	3
EDG 5414	Instructional Strategies in Teaching	3
EDG 5414L	Instructional Strategies in Teaching: Laboratory	3
EDP 5053	Educational Psychology: Principles and Applications	3
Special Teaching Lab: Area		3-6
Student Teaching (Practicum)		6

Applications to student teaching are due in the office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester placement. Check with the program leader early in program enrollment to determine Fall placement availability. Specific program requirements vary depending upon applicant's bachelor's degree program, see program faculty for advisement. Contact the department (305) 348-2003 for complete program descriptions.

Administration and Supervision of Vocational Education

To be certified in Administration and Supervision in Vocational Education in Florida, a person must have at least three years of successful teaching

experience in one of the vocational education areas. While one year of successful teaching will meet the experience requirement for admission to the master's degree program initially, the three-year teaching experience requirement must have been completed either before or at the same time as degree requirements are completed. 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.

Degree hours: (33-36)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5265	Supervision and Coordination of Vocational Education Programs	3
EVT 5664	Community Relations and Resources for Vocational Education	3
EVT 6264	Administration of Local Vocational Education Programs	3
EVT 6930	Seminar in Vocational Education	3
EDA 6061	Introduction to Educational Leadership	3
RED 6336	Reading in the Content Area ¹	3

Area of Professional Emphasis

EVT 6946	Supervised Field Experience	3
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Advisor approved electives: (3-6)

The candidate may select a course (or courses) that will increase administrative and supervisory competencies.

¹Students who have met the reading requirement as undergraduates or through approved in-service education may substitute an elective for this course.

Health Occupations Education**Degree hours: (33)**

EDF 5481	Analysis and Application of Education Research	3
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EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations of Education	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational Education	3
EVT 6930	Seminar in Vocational Education	3

Area of Professional Emphasis: (9)

EVT 5315	Improvement of Teaching Strategies in Health Occupations and Nursing Education	3
EVT 5317	Occupational Analysis in Health Occupations and Nursing Education	3
EVT 6318	Current Issues in Health Occupations and Nursing Education	3

Advisor approved technical electives: (6)

The candidate is encouraged to select courses that will increase subject area technical competencies, career goals, and teaching certification requirements such as: courses in Nursing, Health Sciences, Health Services, or Public Health.

RED 6336	Reading in the Content Area	3
EME 6405	Computers in the Classroom	3

Home Economics Education (Family and Consumer Sciences Education)**Non-School Based Track**

This track focuses on educational leadership of Family and Consumer Scientists presently employed in non-school educational environments and those preparing for such positions.

This program does not lead to State of Florida teacher certification. Admission to this track does not require teacher certification.

Degree hours: (30)

HEE 5335	Trends and Issues in Home Economics Education	3
HEE 6156	Teaching Home Economics in Diverse Environments	3
ADE 5180	Organizational and Community Processes in AE/HRD	3

EDF 5481	Analysis and Application of Educational Research	3
HEE 6915	Research in Home Economics Education	3
HEE 6937	Seminar in Home Economics Education	3

Area of Professional Emphasis (9)
With program advisor's approval, students may select courses in Home Economics or related subject matter based on professional competencies and needs.

Advisor approved elective (3)

The candidate in consultation with the advisor will make selections on the basis of individual needs and career goals.

Technology Education**Degree hours: (33)**

EDF 5481	Analysis and Application of Educational Research	3
EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations	3
EVT 5650	Trends and Issues in Vocational Education	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational Education	3
EVT 6930	Seminar in Vocational Education	3

Area of Professional Emphasis (9)

EIA 5811	Equipment and Facility Planning	3
EIA 6683	Instructional Projects Development	3
EIA 6931	Analysis of Technology Education	3

Advisor approved elective 3

EIA 5925	Special Topics	3
or		
RED 6336	Reading in the Content Area ¹	3

Students are encouraged to select courses that will increase subject area technical competence.

¹Students who have met the reading requirement as undergraduates or through approved in-service education, may substitute an elective for this course.

Vocational Home Economics Education (Family and Consumer Sciences Education)

Degree hours: (33)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations	3
HEE 5335	Trends and Issues in Home Economics Education	3
EVT 5168	Curriculum Development in Vocational Education	3
HEE 6156	Teaching Home Economics in Diverse Environments	3
HEE 6915	Research in Home Economics Education	3
HEE 6937	Seminar in Home Economics Education	3

Area of Professional Emphasis: (9)

With program advisor's approval, students may select courses in Home Economics or Family and Consumer Sciences subject matter based on professional competencies needed. The candidate in consultation with the advisor will make selections on the basis of individual needs and career goals.

Vocational Industrial Education

Degree hours: (33-36)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6211	Psychological Foundations of Education	3
EDF 6608	Social, Philosophical, and Historical Foundations	3
EVT 5650	Trends and Issues in Vocational Education	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational and Technical Education	3
EVT 6930	Seminar in Vocational Education	3
EVT 5695	International Comparative Vocational Education	3

Area of Professional Emphasis: (6)

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, workshops, or independent study.

Advisor approved technical electives: (3-6)

The candidate will be encouraged to select courses that increase subject area technical competence.

Doctor of Education Degree Programs

Admission Requirements

The College of Education has common admission requirements for its Doctoral Programs regardless of the specialty sought. Applicants to the program must submit the following records and documents to the Office of Admissions:

1. A completed Application for Graduate Admission with appropriate fees.
2. An official copy of the Graduate Record Exam (GRE) scores.
3. Official transcripts of all higher education institutions attended.

Additionally, applicants must submit the following to the Coordinator of Doctoral Programs in the College of Education.

1. Three letters of reference attesting to the applicants ability to succeed in doctoral study.
2. A current resume/vita.
3. A statement that sets forth the applicant's career goals and relates these goals to the completion of the doctoral program.

No action will be taken on incomplete files. A file is considered incomplete if any of the above is missing.

The application and all supporting documentation is reviewed by program faculty. The criteria applied in reviewing the applicant's file are noted below. Exceptions to one or more of the stated criteria may be granted provided the applicant can provide compelling reasons and evidence.

1. A grade point average (GPA) of at least 3.0 (on a 4.0 scale) in upper level undergraduate work.
2. A 3.25 GPA in all graduate work attempted.
3. A master's degree from an accredited institution.
4. A minimum combined verbal and quantitative score of 1000 on the GRE.

5. Foreign students must demonstrate a TOEFL score of at least 550.

Upon completion of the review of the file the applicant will be interviewed by program and departmental faculty which comprise a Faculty Admissions Committee. Final decisions are made by the Faculty Admissions Committee and the Dean of the College. As admission to programs is competitive, meeting minimum admission requirements does not assure admission into the program. A candidate for admission to the program will be judged not only on the basis of quantitative criteria, but also in relation to prior experience, especially as it relates to future career goals. Additional information is available from the Coordinator of Doctoral Programs or Program Faculty.

Research and Statistics: (9)

Required Courses:

STA 6166	Statistical Methods in Research	3
EDF 6486	Research Methods in Education: Experimental Design and Analysis ¹	3

¹Prerequisite: EDF 5481 and STA 6166.

One of the following:

EDF 6403	Quantitative foundations of Education	
	or	
EDF 6475	Qualitative Foundations of Educational Research	

Professional Education Core (6)

EDF 7937	Advanced Topics in the Social Foundations of Education ¹	3
EDP 7057	Educational Psychology: Advanced Applications	3

¹All doctoral students must enroll in EDF 7937 within their first year of admission.

Dissertation: (24)

The student is responsible for a minimum of 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge.

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, and favorable recommendations of the supervisory and guidance committee. A minimum of six credit hours of dissertation are to be undertaken each semester the dissertation is being prepared. Continuous enrollment in dissertation study

is required (including Summer semester).

Curriculum and Instruction

The department offers Curriculum and Instruction specialties in the following areas: Art Education, English Education, Mathematics Education, Modern Language Education, Science Education, and Social Studies Education.

Additional Admission Requirements

In addition to the admission requirements stated, the applicant must possess:

1. Career goals in professional education consistent with the objectives of a doctoral program.
2. Appropriate prior work experience.

Core Courses: (18)

EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Instruction: Theory and Research	3
EDG 7665	Seminar in Curriculum	3
EDF 7934	Seminar in Social Foundations of Education	3
EDF 7937	Advanced Topics in the Social Foundations of Education ¹	3
EDP 7057	Psychological Foundations of Education	3

¹All doctoral students must enroll in EDF 7937 within their first year of admission.

Research and Statistics (9)

Specialty Area: (36)

The specialty areas include art education, early childhood education, elementary education, English education, instructional leadership, mathematics education, modern language education, music education, reading education, science education, and social studies education.

Cognate Area: (18)

The cognate area requires a minimum of 18 semester hours of course work in a single area of study related to the specialty. The courses should be chosen with regard to coherence and relevance to the anticipated substantive aspect of the dissertation and in consultation with the advisor. The cognate area may be taken in the College of Education, in the College of Arts and Sciences, or any other area offering courses relevant to the student's program.

Candidacy Examinations and Advancement to Candidacy

The student must successfully pass candidacy examinations covering course work and also submit copies of a dissertation proposal, which has been approved by the supervisory committee, to the Dean of the College and to the Dean of Graduate Studies.

Dissertation (24)

The student is responsible for a minimum 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge in an area of early childhood education, elementary education, secondary education, one of the K-12 areas, or in instructional leadership.

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, favorable recommendations of the supervisory and guidance committee, and an approved dissertation proposal). A minimum of six credit hours of dissertation are taken each semester the dissertation is being prepared. Continuous enrollment in dissertation study (including Summer semester) is required.

EDG 7980 Doctoral Dissertation 24

Mathematics Education Specialization

The doctoral program in Mathematics Education in Florida International University's College of Education is a subspecialization in the Curriculum and Instruction Ed.D. Degree. The requirements of the Mathematics Education program are as follows:

Doctoral Core (15)

Five (5) courses in foundation areas to be taken by all students.

EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Instruction: Theory and Research	3
EDG 7665	Seminar in Curriculum	3
EDF 7934	Seminar in the Social Foundations of Education	3
EDP 7057	Advanced Educational Psychology	3

Mathematics Education Doctoral Major—Specialization courses in the area of Mathematics (36)

MAE 7165	Curriculum Development in Mathematics Education	3
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MAE 7115	Advanced Study of Mathematics Learning Technology	3
MAE 7193	Advanced Study of Mathematics Teaching and Teacher Education	3
MAE 7960	Critique of Educational Literature in Mathematics Education	3
MAE 7963	Analysis and Critique of Research in Mathematics Education	3
MAE 7xxx	Educational Research in Mathematics Education	3
Mathematics*		18
	Substantial study of mathematics is expected.	

Goals:

- A. Depth of study through at least one 7000-level sequence.
- B. Breadth of study through 6000-level sequences.

*Please consult with the major Professor/Supervisory Committee for the details.

Cognate Area (18)

A coherent set of courses related to Mathematics Education. If a student has completed a Master's degree in a cognate field at another institution, he or she may take two or more courses in the same cognate field at FIU to complete the requirement, but the coherency aspect of the cognate must be evident in the relevance of applicability to the student's major area of study.

Research and Statistics (12)

Students are required to enroll in the following courses:

EDF 5481	Analysis and Application of Educational Research	3
EDF 6486	Research Methods in Education	3
STA 6166	Statistical Methods in Research I	3
Students take one of the following:		
EDF 6403	Quantitative Foundations of Education	3
EDF 6475	Qualitative Foundations of Educational Research	3

Admission to Candidacy

To be admitted to candidacy, the applicant must:

1. Meet residency requirement (18 credits in one calendar year)
2. Pass a comprehensive examination covering the major field, cognate, doctoral core, and research and statistics. The examination will be taken at the completion of the student's coursework and with the consent of the student's doctoral

- program Advisor/Supervisory Committee.
- 3. Complete the research and statistics requirements satisfactorily.
- 4. Submit copies of a dissertation proposal approved by the Supervisory Committee to the Dean of the College of Education and to the Dean of Graduate Studies.

Dissertation (24)

An original contribution to knowledge in an area of Mathematics Education. The student is expected to complete the dissertation five (5) years from the date of advancement to candidacy (i.e., successful completion of written and oral examinations, favorable recommendation of the supervisory/guidance committee, and an approved dissertation proposal.) Six (6) credit-hours of dissertation are taken per semester during the time that the dissertation is being developed. The remaining credits, if any, are taken during the semester that the dissertation is completed.

EDG 7980 Doctoral Dissertation 3-24

Transfer of Credit

Up to 36 hours of prior graduate college work may be applied to the student's program. In general, major area courses must be taken as a part of the student's planned program of study.

**Modern Languages/
Bilingual Education
Specialization**

Students are required to enroll in the following courses:

Required Courses (18)

- FLE 7761 Research in Modern Languages/ Bilingual Education 3
- FLE 7165 Content-Based Language Curriculum Development 3
- FLE 7938 Doctoral Seminar in Multicultural Education 3
- FLE 6925 Workshop in Second Language Education 3
- EDF 5995 Field Study Abroad or Modern Language/Bilingual School Experiences 6

Advisor approved electives (18) select from:

- FLE 6336 Methods of Teaching Modern Languages (7-12) 3
- LIN 5825 Studies in Bilingualism 3

- EDA 6061 Introduction to Educational Leadership 3
- EDF 5881 Foundations of Bilingual Education 3
- EDA 7069 Educational Policy 3
- FLE 5895 Bilingual Education Teaching Methodologies 3
- EDG 5757 Curriculum Development for Bilingual Programs 3
- EDF 6444 Consultation and Assessment with Culturally and Linguistically Diverse Populations 3
- TSL 5142 Curriculum Development in ESL 3
- TSL 5371 Special Methods of TESOL 3
- EDA 6195 Communication in Educational Leadership 3
- FLE 6938 Seminar in Second Language Testing 3

Cognate Area (18)

Students must select courses at the 5000, and 6000 levels from the Modern Language Department. If a student has completed a degree in the language, he or she may take three courses in the language and three courses in another educational specialization.

Core Courses (18)

Research and Statistics (9)

Dissertation: (24)

An original contribution to the field of Modern Languages/Bilingual education.

EDG 7980 Doctoral Dissertation 24

**Science Education
Specialization**

The doctoral program in Science Education in Florida International University's College of Education is a subspecialization in the Curriculum and Instruction Ed.D. Degree. The requirements of the Science Education program are as follows:

Doctoral Core (15)

- Five (5) courses in foundation areas to be taken by all students.
- EDG 7222 Curriculum: Theory and Research 3
- EDG 7362 Instruction : Theory and Research 3
- EDG 7665 Seminar in Curriculum 3
- EDF 7937 Advanced Topics in the Social Foundations of Education 3
- EDP 7057 Educational Psychology: Advanced Applications 3

Research and Statistics (12)

Students are required to enroll in the following courses:

- EDF 5481 Analysis and Application of Educational Research 3
- EDF 6486 Research Methods in Education 3
- STA 6166 Statistical Methods in Research I 3
- Students take on of the following:
- EDF 6403 Quantitative Foundations of Education 3
- EDF 6475 Qualitative Foundations of Educational Research 3

Cognate Area (18)

A coherent set of courses related to the student's major area of study.

Science Education Doctoral

Major—Specialization courses in the area of Science (36)

Dissertation (24)

An original contribution to knowledge in an area of Science Education. The student is expected to complete the dissertation five (5) years from the date of advancement to candidacy (i.e., successful completion of written and oral examinations, favorable recommendation of the supervisory/guidance committee, and an approved dissertation proposal.) Six (6) credit-hours of dissertation are taken per semester during the time that the dissertation is being developed. The remaining credits, if any, are taken during the semester that the dissertation is completed.

EDG 7980 Doctoral Dissertation 3-24

**Social Studies Education
Specialization**

The doctoral program in Social Studies Education in Florida International University's College of Education is a subspecialization in the Curriculum and Instruction Ed.D. Degree. The requirements of the Social Studies Education program are as follows:

Doctoral Core (15)

- Five (5) courses in foundation areas to be taken by all students.
- EDG 7222 Curriculum: Theory and Research 3
- EDG 7362 Instruction : Theory and Research 3
- EDG 7665 Seminar in Curriculum 3
- EDF 7934 Seminar in the Social Foundations of Education 3

EDP 7057 Educational Psychology:
Advanced Applications 3

Social Studies Education

Doctoral Major—Specialization courses in the area of Science (36)

SSE 5908	Individual Study	3
SSE 6305	Early Childhood Social Studies	3
SSE 6355	Elementary Social Studies	3
SSE 6633	Teaching Social Studies in the Secondary School	3
SSE 6939	Seminar in Social Studies Education	3
SSE 6394	Social Studies in Other Nations	3
GEO 5415	Topics in Social Geography	3
CPO 5035	Politics of Development	3
INR 5607	International Relations and Development	3
POS 5706	Research Methodology	3
SOC 5941	Marxian Social Theory and Third World Innovations	3
INR 6205	World Politics	3
ECO 5701	The World Economy	3
HIS 5910	Advanced Research Seminar	3
SSE 7795	Methodologies for Research in Social Studies Education	3
SSE 7938	Doctoral Seminar in Social Studies Education	3

*This is just a sample of content courses that a student can take. Other courses may be taken in consultation with the Major Professor/Supervisory Committee.

Cognate Area (18)

A coherent set of courses related to Social Studies Education. If a student has completed a Master's degree in a cognate field at another institution, he or she may take two or more courses in the same cognate field at FIU to complete the requirement, but the coherency aspect of the cognate must be evident in the relevance of applicability to the student's major area of study.

Research and Statistics (12)

Students are required to enroll in the following courses:

EDF 5481	Analysis and Application of Educational Research	3
EDF 6486	Research Methods in Education	3
STA 6166	Statistical Methods in Research I	3

Students take on of the following:

EDF 6403	Quantitative Foundations of Education	3
EDF 6475	Qualitative Foundations of Educational Research	3

Admission to Candidacy

To be admitted to candidacy, the applicant must:

1. Meet residency requirement (18 credits in one calendar year)
2. Pass a comprehensive examination covering the major field, cognate, doctoral core, and research and statistics. The examination will be taken at the completion of the student's coursework and with the consent of the student's doctoral program Advisor/Supervisory Committee.
3. Complete the research and statistics requirements satisfactorily.
4. Submit copies of a dissertation proposal approved by the Supervisory Committee to the Dean of the College of Education and to the Dean of Graduate Studies.

Dissertation (24)

An original contribution to knowledge in an area of Social Studies/Global Education. The student is expected to complete the dissertation five (5) years from the date of advancement to candidacy (i.e., successful completion of written and oral examinations, favorable recommendation of the supervisory/guidance committee, and an approved dissertation proposal.) Six (6) credit-hours of dissertation are taken per semester during the time that the dissertation is being developed. The remaining credits, if any, are taken during the semester that the dissertation is completed.

EDG 7980	Doctoral Dissertation	3-24
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Transfer of Credit

Up to 36 hours of prior graduate college work may be applied to the student's program. In general, major area courses must be taken as a part of the student's planned program of study.

Vocational and Technical Education Leadership Track

The doctoral track in Vocational and Technical Education Leadership is designed to promote the preparation of highly competent professionals in vocational and technical education. It is a track within the Adult Education and Human Resource Development doctoral program. Although each curriculum has its own specific objectives, the

goals shared by these programs are the improvement of educational practice and stimulation of personal and professional growth toward excellence.

The Doctor of Education degree is conferred on the basis of high scholarship and skill in the application of knowledge from theory and research findings to practical vocational and technical education problems.

Applications for admission to the doctoral program are invited from individuals who are highly motivated and intellectually capable of meeting the challenges of a rigorous doctoral degree program.

Additional Admission Requirements

In addition to the admission requirements stated, the applicant must possess:

1. Career goals in professional education consistent with the objectives of a doctoral program.
2. Appropriate prior work experience.

Program of Study

Doctorate programs of study vary according to the individual needs of the participants and their current or anticipated professional goals. A typical program will require a minimum of 99 semester hours beyond the baccalaureate degree and will involve the categories of courses noted below. The list should be considered as a sample program rather than an absolute delineation of exact requirements. Actual programs are planned by the participants, their major professor, and doctoral committee.

Program Components

Adult Education and HRD Core¹ 12

Generic Core² 30-36

Professional Education Core 6

EDF 7937	Advanced Topics in the Social Foundations of Education	3
EDP 7057	Educational Psychology: Advanced Applications	3

All doctoral students must enroll in EDF 7937 within the first year of admission.

Vocational and Technical Education Leadership ³	15-21
Research and Statistics	9
Prospectus and Dissertation	24

The student is expected to complete the dissertation within five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, favorable

recommendations of the supervisory and guidance committee, and an approved dissertation proposal). A minimum of six credit hours of dissertation are taken each semester the dissertation is being prepared. Continuous enrollment in dissertation study is required (including Summer semester).

¹Common AE & HRD and V & TEL requirement

²May include up to 36 semester hours of graduate credit from an approved Masters degree program and transfer credit.

³May include AE & HRD courses.

Certificate and Add-on

Certification Programs

Graduate Professional Certificate - Health Occupations Education

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.

This 24 semester hour plan is designed to meet the needs of the individual who (1) is occupationally competent in a health field and currently teaching or desires to teach a health occupations subject, (2) holds a teaching certificate or equivalent 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: (24-27)

EVT 5078	Technical Education in American Society	3
	or	
EVT 5650	Trends and Issues in Vocational Education	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational and Technical Education	3
EVT 5315	Improvement of Teaching Strategies in Health Occupations and Nursing Education	3
EVT 5317	Occupational Analysis in Health Occupations and Nursing Education	3

and/or

ADE 5385 Adult Teaching and Learning 3

Advisor approved electives (6)

A minimum of two courses selected from courses in General Professional and Adult Education, Vocational Education, Health Service Administration or Health Specialty.

Course Descriptions

Definition of Prefixes

ADE - Adult Education; AFA - African-New World Studies; ARE - Art Education; CGS - Computer Applications; CHD - Child Development; EDA - Education: Educational Leadership; EDF - Education: Elementary; EDE - Education: Foundations; EDG - Education: General; EDH - Education - Higher; EDP - Education: Psychology; EDS - Education: Supervision; EEC - Education: Early Childhood; EED - Education: Emotional Disorders; EEX - Education: Exceptional Child, Core Competencies; EGI - Education: Exceptional Child, Gifted; EIA - Education: Technology; ELD - Education: Specific Learning Disabilities; EME - Education: Technology and Media; EMR - Education: Mental Retardation; ESE - Education Secondary; EVT - Education: Vocational/Technical; FAD - Family Development; FLE - Foreign Language Education; HEE - Home Economics Education; HDD - Housing; HLP - Health, Leisure, and Physical Education; HME - Home Management Equipment; HOE - Health Occupations Education; HSC - Health Sciences; LAE - Language Arts and English Education; LEI - Leisure; MAE - Mathematics Education; MHS - Mental Health Services; MUE - Music Education; PEL - Physical Education; PEM - Physical Education Activities; PEO - Physical Education Activities; PEP - Physical Education Activities; PET - Physical Education Therapy; RED - Reading Education; SCE - Science Education; SDS - Student Development Services; SPS - School Psychology; SSE - Social Studies Education; TSL - TESOL. F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering; ALT-alternate years; AR-as required.

ADE 5081 Introduction to Adult Education and Human Resource Development (3). Developing rationale for and philosophy of human resource development/adult education: contrasting agencies, program, and curricula; analyzing factors affecting human resource development, differentiating adults and youths as learners; planning and appraising human resource development programs. (F)

ADE 5383 Instructional Analysis and Design (3). Analyzing models for instructional analysis and design.

Identifying the target population, instructional needs, job and task analysis. Developing learning objectives and related design. Prerequisites: ADE 5081, or ADE 5385, or permission of the instructor. (F)

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. (S-UP; F-Brow)

ADE 6180 Organizational and Community Processes in AE/HRD (3). Analyzing human resource and community development programs, the processes and implemental strategies; needs assessment objectives, curricula, recruitment, implementation, and evaluation. Prerequisites: ADE 5081, ADE 5385 or permission of the instructor. (F)

ADE 6186 Comprehensive Program Evaluation in AE/HRD (3). Development of a comprehensive strategy for evaluating complex educational, training, human resource and organizational development programs. Prerequisites: ADE 6180 or permission of the instructor. (S)

ADE 6195 Perspectives on Adults with Disabilities (3). Distinguishing the various perspectives of the employment, inclusion, and education of adults with disabilities. Analyzing forces that inhibit solutions. Developing programs, curricula, materials, recruitment strategies, and evaluation designs. (SS)

ADE 6260 Management of AE/HRD Programs (3). Analyzing regulations affecting adult education/human resource development, selecting and training staff; selecting organizational patterns; executing managerial responsibilities; administering supportive services; relating training to organization development. (S)

ADE 6286 Instructional Development and Implementation (3). A systematic approach to developing instructional materials and strategies appropriate to adult and organizational needs. Implementation strategies including instructional delivery skills for adult learning. Prerequisite: ADE 5383. (S)

ADE 6476 Computer Based Training Design (3). A basic course in computer based instruction and training. The applica-

tion of instructional design to CBT, and proficiency in an authoring software. A working knowledge of personal computers is recommended. Prerequisite: ADE 5383 or Permission of the instructor. (F)

ADE 6674 Trends and Issues In AE/HRD (3). Presentation and analysis of state-of-art trends impacting development of human resources in specific organizations including educational agencies/business & industry/public sector and commerce. Prerequisites: ADE 6180 or equivalent. (F)

ADE 6906 Directed Study in Adult Education and Human Resource Development (1-3). Specialized intensive study in areas of interest to the student. Subject to approval of program adviser. (AR)

ADE 6925 Workshop in Adult Education and Human Resource Department (1-6). Intensive development of selected competencies related to instructional, curricular and/or administrative skills of special interest to students in adult education/human resource development. (AR)

ADE 6930 Seminar in Adult Education and Human Resource Development (1-3). Intensive study of instructional, curricular, and/or administrative principles and practices for the solution of problems of special interest to students in adult education and human resource development. (AR)

ADE 6935 Special Topics in Adult Education and Human Resource Development (1-3). 'Mini-courses' which provide for an examination of special facets of adult education and human resource development. (AR)

ADE 6945 Internship in Adult Education or Human Resources Development (3 or 6). Required in both masters programs. Internship in organizations according to student's needs & interests. Supervisory visits & conferences are periodically conducted. Prerequisites: ADE 6180, ADE 6260, ADE 6286 or Permission of the instructor. (F)

ADE 7475 Comparative Systems, Strategies and Materials for Adult Education/HRD (3). A review and critique of the prevailing inventory of packaged systems on the market. Examination of assumptions and problems surrounding their actual usage in local and national organizations. Prerequisites: ADE 6180/ADE 5383. (S)

ADE 7571 Consulting as an Adult Education/HRD Process (3). Examination of use of internal/external consultation in organizations. Strategies for making entry diagnoses interventions achieving internalization of processes outcomes. Prerequisites: ADE 6180, ADE 5383. (F)

ADE 7772 Review of Research in Adult Education and Human Resource Development (3). Required in the doctoral program. A review and synthesis of research & development activities in Adult Education/HRD. Examination of resources/practices/designs & justifications. Assessment of the status of research in this field. Prerequisites: EDF 5481, ADE 5383, ADE 6180. (F)

ADE 7920 Colloquium in AE/HRD (1-6). Lectures & discussions by distinguished educators/social scientists/organizational executives/graduate faculty and students. Colloquia presents specific topics related to issues/trends/designs and applications. (S)

ADE 7964 Comprehensive Doctoral Examination, Adult Education/HRD (0). Comprehensive doctoral examination in the Adult Education/Human Resource Development. Prerequisite: Permission of Major Professor. (F,S,SS)

ADE 7980 Doctoral Dissertation, Adult Education (6-9). Research for doctoral dissertation for those students approved for candidacy in the Adult Education/Human Resource Development Program. Prerequisite: Advancement to Candidacy in doctoral program. (F,S,SS)

ADE 7985 Dissertation Defense, Adult Education/HRD (0). Defense of Dissertation. Prerequisites: Permission of Major Professor and ADE 7980. (F,S,SS)

AFA 6325 Pedagogy in the African Diaspora: Literacy, Culture, Race and Gender (3). This course explores pedagogy broadly throughout the African Diaspora through critical examinations of race, culture, gender and praxis. The course provides opportunities for research in schooling, teacher preparation and gender/class/race based literacy at home and abroad.

ADE 5457C Introduction to Computer Art (3). Exploration of the color computer, peripherals and selected software as tools for creating expressive art. Individual imaging projects,

lesson plans, readings and presentations required. (AR)

ARE 5553 Introduction to Art Therapy (3). An overview of art therapy as a verbal and nonverbal means of communication with special emphasis on psychodynamic fundamentals inherent to the process for the purpose of diagnosis, treatment, and intervention for people with special needs. (AR)

ARE 5555C Advanced Art Therapy (3). Examination of strategies, techniques and current theoretical approaches in art therapy. Delineation and application of an individual field experience is required. Prerequisite: ARE 5553. (AR)

ARE 5905 Directed Study in Art Education (1-6). Individual investigation and research in one or more areas of art education. Prerequisite: Consent of professor. (F,S,SS)

ARE 5945 Supervised Teaching: Art Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Program and completion of prerequisite course work in education and subject matter area. Supervised teaching in an elementary or secondary school. (S)

ARE 6140 Curriculum and Instruction in Art (3). 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. (S)

ARE 6262 Organization and Coordination of School and Community Art (3). Procedures for the organization, coordination and evaluation of school, community, and in-service art programs, with particular attention to the urban multicultural setting. (F)

ARE 6304 Instruction in Early Childhood Art (3). Elective in masters program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in preschool, kindergarten and primary grades. Lab fee required. (F,S,SS)

ARE 6315 Instruction in Elementary Art (3). Elective in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in

elementary education. (AR) Lab fee required.

ARE 6746 Seminar in Art Education: Contemporary Issues and Research (3). Examination of current issues and review of research in art education literature. Delineation and application of an individual research problem. Prerequisite: EDF 5481. (SS)

ARE 6925-29 Workshop in Art Education (3). Production and application of materials and techniques in art education, in a laboratory or field setting. Lab fee required. (SS)

ARE 7938 Doctoral Seminar in Art Education (3). Advanced doctoral study in current theories and research related to art education. Prerequisites: ARE 6746 and EDF 6486. (F,S,SS)

CHD 5266 Advanced Studies in Child Development (3). Survey of current literature on selected areas, analysis of trends and issues, and investigation of recent research in Child Development. Prerequisites: CHD 3220, CHD 4210 or equivalent. (AR)

CGS 5410 Logo for Educators (3). Aspects of Logo as used by educators. Creative aspects, the language, philosophy, structure, and application. Prerequisite: Computers in Classroom or equivalent. (AR)

CGS 5413 PILOT for Educators (3). Authoring language PILOT for teachers. Designed to develop language and its application to all levels of education. Prerequisite: EME 6405 or equivalent. (AR)

EDA 6061 Introduction to Educational Leadership (3). Introduction to Educational Administration/Leadership as a field of both study and practice. Emphasis is placed on the social, economic, and political context of contemporary educational administration; the organization, governance, and control of American education; and Educational Administration/Leadership as a profession and career. (F,S)

EDA 6063 Administration of Independent Schools (3). A survey course that examines the administration of private schools. (AR)

EDA 6192 Leadership in Education (3). Review, analysis and application of concepts and theories of leadership with emphasis on organizational and environmental factors, group dynamics, and change processes in education. (AR)

EDA 6195 Communication in Educational Leadership (3). Analysis of principles, processes, and techniques of effective communication, public relations in educational leadership, and school-community relations. (S)

EDA 6225 Labor Relations in Education (3). Examines relations between the school board and its employees. (AR)

EDA 6232 School Law (3). A basic course in school law. (F,S,SS)

EDA 6242 School Finance (3). Describes, and analyzes current and emerging school finance plans; the influence of the courts and federal and state legislation on those plans; the Florida Education Finance Plan; and the budget responsibilities of the school principal. (S)

EDA 6271C Microcomputer Application for Administrators (3). The role of computers in educational administration. Applications generic to effective leadership utilizing computer technology. (F)

EDA 6503 The Principalship (3). Organization and administration of the school; emphasis on competencies necessary for leadership and management of the school center, both elementary and secondary. (F)

EDA 6905 Directed Study in Educational Leadership (1-3). For advanced graduate students wishing to engage in independent study under the direction of a faculty member. Prerequisites: Admission to master's program and permission of instructor. (F, S,SS)

EDA 6925 Workshop in Educational Administration and Supervision (1-6). Offers an opportunity for experienced school personnel to participate in a problem-solving work-shop. (AR)

EDA 6928 Special Topics: School Improvement (1-6). Offers an opportunity for experienced school personnel to participate in a school improvement workshop. (AR)

EDA 6930 Seminar in Educational Leadership (3). Review of selected concepts and competencies in the field of educational leadership. (AR)

EDA 6941 Practicum in Educational Leadership (3). Application of theory and research to field-based problems in educational administration/leadership. Prerequisites: Permission of the instructor. (AR)

EDA 6943 Supervised Field Experience (1-6). Supervised field experience appropriate to the student's interests and professional goals. Prerequisites: Permission of the instructor. (AR)

EDA 6945 Colloquium in Educational Administration (3). Examination of selected contemporary policy and practice issues in educational administration and supervision. Repeatable with permission of the instructor. (AR)

EDA 7069 Educational Policy (3). Review, analysis, and synthesis of various concepts and models of educational policy formation and implementation. Doctoral students only.

EDA 7103 Theories of Educational Administration (3). Examination of theoretical constructs and models related to the organization and administration of educational institutions. Prerequisite: Admission to doctoral program. Doctoral students only.

EDA 7233 Education Law and Ethics (3). Examines legal and ethical issues in educational administration. Prerequisite: EDA 6232. (AR)

EDA 7236 Law and Higher Education (3). Analyzes the legal structure of higher education, including religion, academic freedom, employment, due process, student's rights, desegregation, tort liability, and other issues. (AR)

EDA 7288 Politics of Education (3). Analysis of the political dynamics of educational governance and the political dimension of educational administration. Doctoral students only. (F)

EDA 7550 Administration of Higher Education (3). Analysis of colleges and universities as social organizations with special emphasis on issues of administration, organization, and governance in higher education. (AR)

EDA 7905 Directed Study in Educational Administration and Supervision (1-6). For advanced graduate students wishing to engage in independent study under the direction of a faculty member. Prerequisite: Permission of the instructor. (F,S,SS)

EDA 7930 Seminar in Educational Administration and Supervision (3). Consideration of critical issues and problems in the administration of educational institutions. (AR)

EDA 7937 Special Topics in Higher Education Administration (3). Seminar devoted to the in-depth treatment

of selected special topics in theory, research, and practice related to higher education administration. (AR)

EDA 7943 Field Projects (1-6). Participation by advanced graduate students in field projects and studies. Prerequisite: Permission of the instructor. May be repeated with permission of the instructor (AR)

EDA 7964 Comprehensive Doctoral Examination, Educational Administration and Supervision (0). Comprehensive doctoral examination in Educational Administration and supervision. Prerequisite: permission of Major Professor. (F,S,SS)

EDA 7979 Dissertation Research Seminar (3). Designed to provide advanced doctoral students with a knowledge and understanding of the process of dissertation research and writing and of the dissertation defense. Prerequisite: Advanced doctoral standing. (AR)

EDA 7980 Doctoral Dissertation (6-9). Research for doctoral dissertation. Prerequisite: Advancement to candidacy in doctoral program. (F,S,SS)

EDA 7985 Dissertation Defense, Educational Administration and Supervision (0). Defense of doctoral dissertation. Prerequisite: Permission of the Major Professor. (F,S,SS)

ED E 5267 Education of the Child in Urban Society (3). For students desiring advanced study in the schooling of inner-city pupils in K-6. Prerequisites: EDF 3723, EDG 3321, EDG 3322. (AR)

ED E 5905 Directed Study in Elementary Education (1-3). Available to graduate elementary majors. Provides for individual investigation in the area of elementary education. Permission of the instructor required. (F,S,SS)

ED E 5925 Special Topics in Elementary Education (3). Available to undergraduate and graduate elementary majors. Provides opportunities to develop skills and knowledge under the guidance of a specialist in a selected area. Permission of the instructor required. (AR)

ED E 6205 Curriculum Design for Childhood Education (3). Required in masters programs in elementary education. A study of curriculum theory, research, construction and evaluation related to elementary schools. (AR)

ED E 6488 Research in Elementary Education (3). Elective in masters pro-

gram in elementary education. Required for students in doctoral program. Research in elementary education and the paradigms associated with this research. Prerequisite: EDF 5481. (AR)

EDE 6930 Seminar in Elementary Education (3). Required in masters program in elementary education. Required for students in doctoral program. Advanced study of critical issues and problems in elementary education. Prerequisite: EDE 6488. (AR)

EDE 6971 Thesis in Elementary Education (6) Elective in masters program in elementary education. Design and preparation of an original scholarly investigation in elementary education. Prerequisites: EDF 5481, EDE 6488, and consent of instructor. Corequisite: EDE 6930. (F,S,SS)

EDE 7935 Doctoral Seminar in Elementary Education (3). Required for students in doctoral program. Advanced doctoral study of current theories and research related to elementary education. Prerequisites: EDE 6488 and EDE 6930. (AR)

EDF 5216 Effective Learning in the Classroom (3). A behavioral approach to effective teaching techniques, including theoretical background, behavioral definitions, writing effective objectives, and evaluation of effective learning in the classroom. A field experience will be included. (AR)

EDF 5432 Measurement and Evaluation in Education (3). Competencies required for the design, construction or selection, and evaluation of measuring instruments. Prerequisite: EDF 5481. (F,S,SS)

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. (F,S,SS)

EDF 5517 History of Education in the Changing Social and Philosophical Context of the American Republic (3). An historical examination of formal education in the changing social and philosophical context of the American republic. Special focus on school/society relationship. (F,SS)

EDF 5812 National Educational Systems: A Comparative Analysis (3). Examination of educational structures

and guiding educational objectives in a limited number of both developed and developing countries. Analysis of responses of national educational systems to common educational issues. (S)

EDF 5820 Latin American Education: An Historic and Contemporary Overview (3). Historical and current development of Latin American Education, and analysis of principal forces shaping this development. (AR)

EDF 5821 African Educational Systems: A Comparative Approach (3). Contemporary trends and issues of education in selected independent African countries, with historical analysis of colonial educational policies and practices. (AR)

EDF 5851 Social/Cultural Conflict in Educational Change (3). This course explores radical interpretations of the relationship of education to development in the Third World. Emphasis will be placed on the problem of values conflict and on the use of appropriate educational technologies. (AR)

EDF 5852 Educational Development Issues in Context: A Multidisciplinary Perspective (3). A critical analysis of educational reforms of the past and the present, drawing on social science research and policy issues in the Third World. Prerequisite: EDF 6850. (S)

EDF 5880 Intercultural Education: National and International Perspectives (3). Analysis of concepts and programs of intercultural and international education. consideration of the role of education in fostering intercultural understanding both nationally and internationally. (F)

EDF 5881 Foundations of Bilingual Education (3). Fundamental theories and models of bilingual education, and information about the historical, philosophical, theoretical and legal background for bilingual multicultural programs in the United States. (AR)

EDF 5905 Directed Study in Education (1-3). 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. Prerequisites: Written permission of the chairman of the Division and the approval of the instructor. (F,S,SS)

EDF 5941 Practicum: Urban Elementary Schools (3). Developing teacher competencies for the urban elementary schools. (AR)

EDF 5942 Multicultural Seminar and Practicum in Urban Education (3). Effective methods of educating immigrant and other minority children. Prerequisite: Current Florida Teaching Certificate. (AR)

EDF 5955 Field Study Abroad (3-6). Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad. (SS)

EDF 5XXXL Supervision and Professional Laboratory Experience (3). Content includes performance standards at the preservice teacher preparation level, Clinical Educator training, mentoring, and classroom strategies that result in improved student performance.

EDF 5XXXL Extending Mentoring Strategies (1). Extends clinical supervision strategies to include emphasis on Florida Educator Accomplished Practices (FEAP), for classroom teachers already trained in Clinical Supervision.

EDF 6211 Psychological Foundations of Education (3). An intermediate course designed to apply theories and principles of learning and development to teaching and student learning in career areas related to education. Challenges of diversity and teacher effectiveness are emphasized. Prerequisites: EDP 3004 or equivalent. (F,S,SS)

EDF 6212 Research Problems in Educational Psychology (3). Critical analysis of research trends and topics in educational psychology with specific relevance to counseling, school psychology, or special education. Students prepare a prospectus for thesis. (AR)

EDF 6301 Cognitive Psychology in Education (3). Review of psychological research and theory pertaining to cognitive development and processes. Applications to education including cognitive strategy training and enhancement or attention and memory. Prerequisite: EDP 6211. (AR)

EDF 6403 Quantitative Foundations of Educational Research (3). Integrative coverage of fundamentals in the general field of educational research with emphasis on utilizing computers for data analysis. Prerequisites: EDF 5481 and EDF 6486, and STA 6166. (AR)

EDF 6444 Consultation and Assessment with Culturally and Linguistically Diverse Populations (3). Issues

in consultation and assessment of individuals with culturally and linguistically diverse backgrounds. (AR)

EDF 6475 Qualitative Foundations of Educational Research (3). Introduction to philosophical, historical, sociological, and other methodologies as aspects of qualitative educational research. Prerequisites: EDF 5481 and EDF 6486. (AR)

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 analysis. Prerequisites: EDF 5481 and STA 6166. (AR)

EDF 6602 Social and Philosophical Foundation of Education: An Urban Perspective (3). Conceptualization and development of education by development of social analysis and ethical decision making. Prerequisites: Admission to Focus/Masters program. (AR)

EDF 6608 Social, Philosophical and Historical Foundations of Education (3). Required of students seeking a regular Masters degree in Education. It will assist students in examining and explaining the differing social context of schooling, the diverse value orientation represented in formal and informal education and the major historical forces shaping schooling in America. (F,S,SS)

EDF 6636 Intercultural Studies: A Qualitative and Quantitative Analysis (3). Interrelationship between race, class, gender, ethnicity, and national origin and their influence in learning. Prerequisites: EDF 5481. (AR)

EDF 6651 International Development Education: Educational Technology, Planning, and Assessment (3). Introduction to the impact of technology in the delivery and management of education. Emphasis is placed on planning, implementation, and assessment in developing societies. (AR)

EDF 6654 Macro- and Micro-Planning in Education (3). This course is designed to study the theoretical and methodological foundations of educational planning in the U.S. and other countries. (F)

EDF 6658 Selected Topics in International Development Education: Current Policy Issues and Problems (3). This course is dedicated to the

study of contemporary problems and issues in the fields of educational policy, planning, management, implementation, and research in developing societies. (AR)

EDF 6689 Urban Education: Defining the Field (3). Examines the state of urban education and contemporary urban life in America. Prerequisite: Admission to Masters program. (AR)

EDF 6850 International Development Education: Contemporary Planning Models and Techniques (3). Designed to explore the relationship between education and the modernization/development process. Special emphasis on historic/contemporary educational planning models and techniques. Prerequisite: EDF 5481. (S)

EDF 6906 Directed Study in International Development Education (3). Specialized intensive study in areas of interest to International Development Education majors. Prerequisite: Approval of program advisor and instructor. (F,S,SS)

EDF 6925 Special Topics in Urban Education (1-5). An opportunity for school personnel to develop special competencies in teaching in an urban environment. Prerequisite: Permission of the instructor. (AR)

EDF 6972 Thesis in International Development Education (3-9). A thesis is required of students in International Development Education which demonstrates the application of their analytical, conceptual, and technical skills to a specific educational development problem. Prerequisite: Final semester standing in the International Development Education Master's degree program. (F,S,SS)

EDF 7656 International Development Education: Innovative Approaches in Educational Planning (3). Introduction to educational planning approaches which stress decentralization. It focuses on new and innovative perspectives which emphasize strategic aspects of educational planning. (AR)

EDF 7934 Seminar in the Social Foundations of Education (3). Provides a social and philosophical frame of reference reflecting the society in which education occurs and the resulting implications for the functioning of schools. Prerequisites: M.S. or equivalent and at least one graduate

course in history, philosophy or sociology, or equivalent. (AR)

EDF 7937 Advanced Topics in the Social Foundations of Education (3). In-depth, advanced exploration of a specific area, issue, or practice in relation to the evolving social, philosophical and historical context of American schooling. Prerequisite: Doctoral students only. (F,S,SS)

EDG 5325 Analysis of Teaching (3). Examination of the research on instruction in teaching, and the development of skills in the observation and analysis of teacher behavior. (AR)

EDG 5414 Instructional Strategies for the Classroom Teacher (3). This course is specifically designed for the Modified Master's Program in Education. Focus is on generic teaching strategies suitable for teaching in South Florida. Special Emphasis will be placed on the development of competence and knowledge supportive of a reflective practitioner. Prerequisite: Permission of the instructor. Corequisite: EDG 5414L. Field experience required. (F,SS)

EDG 5414L Instructional Strategies Lab (3). Applies basic knowledge and skills necessary for teaching. Required of all in mod-masters programs. Corequisites: EDG 5414. (F,SS)

EDG 5417 Learning Styles Applications (3). Designed to help educators use learning styles information to change instruction and improve student achievement. Prerequisite: Tentative admission to Master's program. (AR)

EDG 5707 Cultural and Cross-Cultural Studies (3). Overview of immigration patterns in U.S., discussions of theories of ethnicity, acculturation, intercultural communication. Development of teaching strategies for multicultural classrooms. Multicultural issues in elementary, secondary, adult, vocational, and special education will also be addressed. (F,S,SS)

EDG 5941 Practicum: Urban Secondary Schools (3). Developing teacher competencies in urban secondary schools. (AR)

EDG 6250 Curriculum Development (3). Development of basic technical constructs of curriculum. Planning of reality-based educational programs at all levels of schooling. (S,SS)

EDG 6286 Curriculum Evaluation and Improvement in Urban School Systems (3). Development of skills in

curriculum evaluation and strategies for improvement of on-going curriculum. (S)

EDG 6608 Multicultural Education: Defining the Field (3). Multicultural education and its impact on teaching and the profession. Prerequisite: Admission to Urban masters program. (AR)

EDG 6693 Problems in Curriculum and Instruction: Elementary (3). Investigation of current problems and solutions to essential curricular and instructional issues in elementary education. Prerequisites: EDE 6205, EDE 6225 or equivalent. (SS)

EDG 6694 Problems in Curriculum and Instruction: Middle School (3). Investigation of current problems and solutions to essential curricular and instructional issues in Middle School education. Prerequisite: ESE 6215 or equivalent. (SS)

EDG 6695 Problems in Curriculum and Instruction: High School (3). Investigation of current problems and solutions to essential curricular and instructional issues in high school education. Prerequisite: ESE 6215 or equivalent. (SS)

EDG 6920 Colloquium in Curriculum and Instruction (1-6). Selected readings, presentations and discussions on topics related to curriculum and instruction. Colloquia considers specific topics related to issues, trends and applications in the broad field of education. Prerequisite: Masters Degree. (SS)

EDG 6925, 6926, 6927, 6928, 6929 Special Topics in General 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. (AR)

EDG 6943 Supervised Field Experience (1-5). Students are provided an opportunity to perform supervisory duties appropriate to the students professional goals. Only advanced graduate students are permitted to enroll. (AR)

EDG 7222 Curriculum: Theory and Research (3). Theories of curriculum organization and a survey of curriculum research and historical patterns of curriculum development. Prerequisite: EDG 6250. (F)

EDG 7362 Instruction: Theory and Research (3). Theories of instruction

and research in the learning process, creativity, the thought process, human relations and group dynamic and other fields related to the development of instructional theory and practice. Prerequisites: EDG 6250 or Psychology of Learning. (S)

EDG 7391 Seminar in Instructional Leadership (3). Review theories of change and organizational development applicable to education. Discussion of rules and functions of supervisors, curriculum developers and other leaders in the instructional process. Prerequisites: EDS 6115 or EDS 6050. (F)

EDG 7665 Seminar in Curriculum (3). Provides advanced doctoral students the opportunity to participate in a high level seminar focused on identifying the forces which shape curriculum theory and practice. Prerequisite: EDG 7222. (S)

EDG 7938 Doctoral Seminar in Instructional Leadership (3). Advanced doctoral studies in current theories and research related to instructional leadership. Prerequisite: EDG 7391. (F)

EDG 7964 Comprehensive Doctoral Examination (0). Prerequisite: Permission of Major Professor. (F,S,SS)

EDG 7980 Doctoral Dissertation (3-9). Original contribution to knowledge in major field. Prerequisite: doctoral candidate. (F,S,SS)

EDG 7985 Dissertation Defense (0). Defense of dissertation. Prerequisite: Permission of Major Professor and EDG 7980. (F,S,SS)

EDH 6905 Directed Study in Higher Education (1-6). Specialized intensive study in higher education and/or community college in areas of interest to the student. Subject to approval of program advisor. Prerequisite: Permission of the instructor. (F,S,SS)

EDH 6925 Special Topics in Higher Education/Community College (1-6). Intensive development of selected competencies related to instructional curricular, staff development and/or administrative skills of special interest to students in higher education and community college. Prerequisite: Permission of the instructor. (F,S,SS)

EDH 6935 Special Topics in Higher Education/Community College (1-6). This course provides for the examination of special aspects of higher education of interest to students in higher education and community

college teaching. Prerequisite: Permission of the instructor. (F,S,SS)

EDH 7052 Student and Support Services (3). Comprehensive introduction and overview of student affairs in higher education including history, evaluation and growth, philosophical underpinnings, educational significance, administrative aspects and understanding of individual student service areas. (F)

EDH 7065 Higher Education: Philosophical/Historical Perspectives (3). This course examines basic philosophical positions in higher education; and the history of American higher education. A contemporary philosophical position is then developed. (F)

EDH 7204 Higher Education: Community College (3). This course examines the structure of the community college including: curriculum; administration and legal aspects; the community college concept; technical and career programs and current issues and problems. (S)

EDH 7225 Higher Education: Developmental Programs (3). This course examines the spectrum of developmental programs in higher education. Special attention is given to program structure, academic support systems and curricula designed to increase student achievement. (F)

EDH 7307 Higher Education: Instructional Methods (3). This course will develop knowledge of and skill in the use of higher education instructional methods, such as lecture, discussion, demonstration, TV instruction, and computer assisted instruction. (SS)

EDH 7308 Higher Education: Occupational Programs (3). A core course in the doctoral program in higher education: Instruction. It is designed to help students develop an in-depth knowledge of occupational programs in higher education and the students it serves. Prerequisite: Graduate standing. (S)

EDH 7505 Higher Education: Finance (3). An intermediate course in Higher Education. Presents the economic and financial issues of Higher Education providing base for administrators and practitioners.

EDH 7964 Comprehensive Doctoral Examination (0). Prerequisite: Permission of Major Professor. (F,S,SS)

EDH 7980 Doctoral Dissertation: Higher Education (6-9). Research for

doctoral dissertation. Prerequisites: Advancement to candidacy in the doctoral program and completion of all other doctoral requirements. Course may be repeated as needed. (F,S,SS)

EDH 7985 Dissertation Defense (0). Defense of dissertation. Prerequisite: Permission of Major Professor and EDH 7980. (F,S,SS)

EDP 5053 Educational Psychology: Principles and Applications (3). Theories, empirical bases and principles of development and individual differences, learning environments, and assessment applied to teaching at all educational levels. Challenges of diversity are emphasized. Required of Modified Masters programs. (SS)

EDP 6215 Application of Learning Theory to Instruction (3). Analysis of selected learning theories and application of these theories to an instructional system. (AR)

EDP 6301 Cognitive Psychology in Education (3). Review of psychological research and theory pertaining to cognitive development and processes. Applications to education including cognitive strategy training and enhancement or attention and memory. Prerequisite: EDP 6211 or equivalent. (AR)

EDP 6505 Human Growth and Life-Span Development (3). Advanced survey of principles of human development in bio-psycho-social terms; in-depth study of infancy, childhood, adolescence, emphasizes applications to broad range of educational processes. Prerequisites: EDP 3004 and DEP 3000 (F)

EDP 6506 Human Development: Across the Life Span (3). Advanced survey of life span human development. Demographic, physiological, sociological factors contributing to optimal functioning through adulthood and aging. Applications to counseling and education. (AR)

EDP 7057 Educational Psychology: Advanced Applications (3). Advanced doctoral level seminar. Reviews and applies educational psychology theories and empirical evidence to educational research, program development and policy making at all educational levels. Prerequisite: College of Education doctorate students. (AR)

EDP 7058 Behavioral Intervention Research and Evaluation in Education (3). Design and analysis of observational and behavioral studies in edu-

cation. Includes single subject research studies, structured observation systems, and behavioral interventions. Prerequisite: EDF 5481. (S)

EDS 6050 Supervision and Staff Development (3). Competencies in supervision and staff development.

EDS 6115 School Personnel Management (3). Focus is on skills needed for exercising leadership in school personnel recruitment, selection, assessment, and development. (S)

EEC 5906 Directed Study in Early Childhood Education (1-3). Available to undergraduate and graduate students studying early childhood education. Provides for individual investigation in the area of early childhood education. Permission of the instructor required. (F,S,SS)

EEC 5926 Special Topics in Early Childhood Education (3). Available to undergraduate and graduate students studying early childhood education. Provides opportunities to develop skills and knowledge under the guidance of a specialist in a selected area. Permission of the instructor required. (AR)

EEC 6261 Education Programs for Younger Children (3). Required in masters program in early childhood education. Programs developed for young children; curriculum trends based on contemporary psychological, educational, and sociological research. (AR)

EEC 6455 Programming for Young Handicapped Children: Birth to Five Years (3). Acquaint students with developmentally appropriate curricula, methods, materials, intervention strategies, and teaming approaches for infants, toddlers, preschool, handicapped, and at risk children. Prerequisite: EEX 6017; EEX 3010 or EEX 6051 recommended. (AR)

EEC 6678 Research in Early Childhood Education (3). Elective in masters program in early childhood education. Required for students in doctoral program. Research in early childhood education and the paradigms associated with this research. Prerequisite: EDF 5481. (AR)

EEC 6705 Typical and Atypical Child Development: Birth to Five Years (3). Explore research on normal and atypical child development from birth to five years in physical, intellectual, social, and emotional domains. Field observation required.

Prerequisite: none; EEX 3010 or EEX 6051 recommended. (AR)

EEC 6932 Seminar in Early Childhood Education (3). Elective in masters program in early childhood education. Required for students in doctoral program. Advanced study of critical issues and problems in preschool and early childhood education. Prerequisite: EEC 6678. (AR)

EEC 6948 Supervised Experience in Early Childhood Education (3-9). Available to graduate early childhood education majors. Provides field work in educational institutions and organizations involved in childcare and early childhood education. Prerequisite: Permission of the instructor. (AR)

EEC 6971 Thesis in Early Childhood Education (6). Design and preparation of an original scholarly investigation in early childhood education. Prerequisites: EDF 5481, EEC 6678, and consent of instructor. Corequisite: EEC 6932. (F,S,SS)

EEC 7932 Doctoral Seminar in Early Childhood Education (3). Required for students in doctoral program. Advanced doctoral study of current theories and research related to early childhood education. Topics may vary and may include: social, cognitive, affective and language development. Prerequisite: EEC 6678, EEC 6932. (AR)

EED 5225 Strategies for Students with Emotional Handicaps (3). Instructional strategies and specialized approaches for teaching students with emotional handicaps. Extensive field work required. Prerequisites: EDG 5414 and Lab, EEX 6051, EEX 6227, EEX 6608. (S)

EED 6226 Advanced Theory and Practice: Emotional Handicaps (3). Major theories in the area of behavior disorders, and skills in the application of these theories to education. (S,SS)

EEX 5282 Introduction to Audiology and Auditory Training for Students Who are Deaf and Hard of Hearing (3). The purpose of this course is to provide the opportunity to study the physical dimensions of sound, the psychoacoustic aspects of sound, and the relationship between these. The etiologies, characteristics, and the diagnostic evaluation, treatment and rehabilitation associated will be discussed. Prerequisites: EHD 5110 and EHD 5344.

EEX 5841 Graduate Practicum in Special Education (1). The Graduate Practicum in Special Education provides opportunities for intensive and integrated teaching experiences in the classroom under the close supervision of master teachers and university supervisors. Prerequisite: Completion of professional studies and core courses. Corequisites: EED 5225, ELD 5235, EMR 5215.

EEX 6019 Autism (3). Presents the nature of autism, personal characteristics, patterns of development, and assessment and intervention strategies. Requires field activity. (AR)

EEX 6017 Typical and Atypical Child Development: Birth to Five Years (3). Explore research on normal and atypical child development from birth to five years in physical, intellectual, social, and emotional domains. Field observation required. Prerequisite: EEX 3010 or EEX 6051. (F)

EEX 6051 Education of Students with Exceptionalities (3). Significant concepts in relation to the educational needs of students with exceptionalities. (AR)

EEX 6060 Curriculum for Teaching Students with Mild Disabilities (3). Curriculum models, approaches and significant concepts and skills needed for educational planning and programming for students with mild disabilities. Prerequisites: EEX 5481, EEX 6912. (S)

EEX 6065 Educational Programs for Secondary Level Students with Exceptionalities (3). Considers philosophies and models of secondary programs for students with mild disabilities. Emphasis is given to instructional methods in skills and content areas and identification of transition resources. Prerequisites: MAE 6336, RED 6336. (AR)

EEX 6072 Inclusion of Students with Exceptionalities (3). Awareness of issues underlying the movement to include students with disabilities in general education settings. Techniques and procedures for effective mainstreaming of these students. (SS)

EEX 6106 Acquisition of Speech and Language Skills (3). Development of normal speech and language, and knowledge of speech and language delays and disorders. (S)

EEX 6203 Psychological/Sociological Aspects of Disability (3). Psychological/sociological aspects of

disability in relation to socio/political forces, attitudes, and behaviors that impede or facilitate the options of individuals with disabilities in schools and communities. (AR)

EEX 6208 Medical Aspects of Disability (3). Medical etiology and remediation of disability. Includes genetic, biochemical, nutritional, and physical agents in mental retardation, learning disability, and emotional handicaps. Prerequisite: EEX 3202 or equivalent. (F)

EEX 6211 Assessment of Learning and Behavior (3). Presents a model for assessing the skills and abilities of students with exceptionalities. Emphasis is on administration, scoring and interpretation of a variety of standardized tests, and communication of results in written reports and oral staffings. Prerequisites: EEX 3221 or EEX 6227 or equivalent. Lab fee required. (AR)

EEX 6213 Assessment and Interventions for Young Children with Disabilities (3). Presents an ecological approach to assessment of young children. Formal/Informal assessment including naturalistic observations and the development of an IFSP and IEP required. Prerequisite: EEX 6017, EEX 3010 or EEX 6051. Corequisites: EEX 6455. Lab fee required. (S)

EEX 6227 Educational Assessment of Students with Exceptionalities (3). Presents a model for assessing the academic skills of students with exceptionalities. Emphasis is on use of standardized tests and development of curriculum-based assessments. Lab fee required. (F,SS)

EEX 6228 Integration of Curriculum, Assessment and Instruction (3). This course constitutes the culminating experience in the Masters Program by establishing the link between curriculum, assessment, and instruction. Prerequisite: Completion of required Masters course work. (S)

EEX 6236 Characteristics of Individuals with Severe Disabilities (3). Characteristics of individuals with physically impaired, health impaired, and profound communication disorders and behavior disorders, including autism. Medical etiology, assessment techniques, program planning for student and family. Prerequisite: Graduate level status. (AR)

EEX 6256 Ecological Intervention Strategies for Students with Severe

Emotional Disabilities (3). Designed to have the graduate student apply an ecological framework in addition to educational principles to children and youth with behavior disorders. Prerequisite: EED 6226. (S)

EEX 6259 Reading for Students with Exceptionalities (3). Provides teachers with knowledge of specific developmental, remedial reading and language arts strategies, assessment and implementation models that can be used for students with exceptionalities. (SS)

EEX 6417 Guidance and Counseling of Gifted Students (3). Affective development, parental involvement, counseling theories, underachieving gifted. (SS)

EEX 6455 Programming for Young Children with Disabilities (3). Acquaint students with developmentally appropriate curricula, methods, materials, intervention strategies, and teaming approaches for infants, toddlers, preschool age children with disabilities as well as children at risk. Prerequisites: EEX 6017, EEX 3010 or EEX 6051. Corequisite: EEX 6213. (S)

EEX 6535 Seminar in Special Ed.: Supervision and Leadership (3). Problems in school administration and pattern of curriculum organization as they relate to people with disabilities. Focus on conceptual framework, change factors and future trends in special education. (F)

EEX 6608 Applied Behavior Analysis in Education (3). Application of behavioral principles to children and youth in educational and community settings. Required for special education modified masters' and out-of-field certification majors. Prerequisite: EEX 6051. (F)

EEX 6765 Instructional Technology for Special Education (3). Provides teachers of students with special needs current knowledge in instructional technology, appropriate to enhance student learning. (F,S,SS)

EEX 6771 Independent Living for Individuals with Disabilities (3). Explores personal living skills, employability and transitional skills for adulthood in relation to persons with mental, sensory and physical disabilities. (SS)

EEX 6846 Seminar in Special Education: Issues and Trends (3). A forum to discuss, analyze, and evaluate current issues and trends in special education. Individual issues and trends

will be planned and executed by students. (F)

EEX 6862 Student Teaching (6). Culminating field experience in a program for students with Exceptionalities, demonstrating competencies learned throughout the program. Prerequisite: successful completion of all program requirements. (F,S)

EEX 6863 Supervised Field Experience in Special Education (3-9). Demonstration in a field site of the full range of competencies in diagnostic teaching learned throughout the program. Placements include a variety of field settings. (F,S,SS)

EEX 6906 Directed Study in Special Education (1-6). Concepts or competencies contracted for by graduate students with a faculty member. (F,S,SS)

EEX 6912 Advanced Theory and Research in Special Education (3). Required by graduate students in the Masters or Doctoral programs. Investigation of advanced work in social and psychological research applied to persons with handicaps, mental retardation, learning disabilities, and emotional disturbances. Prerequisite: Certificate in Special Education and/or competence in Special Education. (S,SS)

EEX 6927 Special Topics in Special Education (1-6). Selected competencies in special education, developed in short-term, intensive workshops. (F,S,SS)

EEX 6971 Thesis in Special Education (3). Elective in Masters Program in special education. Design and implementation of original scholarly investigation in special education. Prerequisites: EEX 6912, EDF 5481, consent of instructor. (AR)

EEX 7930 Professional Seminar in Special Education (1). Required 6 semester seminar for new and continuing doctoral students in leadership and professional development issues facing doctoral professionals. Prerequisite: Doctoral standing. (F,S,SS)

EEX 7933 Advanced Topics in Special Education (3). In-depth study and analysis of topics affecting special education practice. Course can be repeated for credit. Prerequisite: Admission to doctoral program in ESE.

EEX 7937 Dissertation Seminar in Special Education (3, repeatable to 9). Designed to take doctoral students through the steps of completing a dis-

sertation. Requires identification and development of a research problem. Prerequisites: Completion of special education core and research and statistics component. (F,S,SS)

EEX 7977 Candidacy Research and Evaluation in Educational Psychology and Special Education (3). Research activities required for Doctoral students in special education prior to candidacy and dissertation. Serves as a bridge between courses and the comprehensive examination. Prerequisite: Doctoral standing. (F,S,SS)

EEX 7980 Doctoral Dissertation (6-9). Original contribution to knowledge in major field. Prerequisite: Doctoral candidate. (F,S,SS)

EGI 5051 Nature and Needs of the Gifted (3). Identification and placement procedures, history of the field, and psychological factors affecting development of the gifted-talented. (F)

EGI 5232 Educational Procedures and Curriculum for Gifted (3). Basic curriculum models in education of the gifted. Relation of models to planning, implementation in traditional classrooms, resource rooms, and special classes. (S)

EGI 6306 Theory and Development in Creativity for Gifted (3). Required for graduate students seeking endorsement in Gifted Education. Knowledge and practice in theory and process of creative thinking and production of creative work. Prerequisite: Graduate level only. (F)

EGI 6405 Special Populations Gifted (3). Required for graduate students seeking endorsement in Gifted Education. Knowledge and theory in cultural, psychological, and educational principles applied to gifted minorities, including the handicapped. Prerequisite: Graduate level only. (SS)

EHD 5110 Nature and Needs of Students Who are Deaf and Hard of Hearing (3). Identification and placement procedures, history of the field, and psychological factors affecting the development of students who are deaf and hard of hearing.

EHD 5246 Teaching Reading to Students Who are Deaf and Hard of Hearing (3). Knowledge and skills in teaching reading to students who are deaf or hard of hearing. Techniques and strategies in the primary grades, intermediate grades and content areas will be discussed as well as the exploration, creation and evaluation of

basic reading materials. Prerequisites: EHD 5110 and EHD 5247.

EHD 5247 Teaching Language and Speech to Students Who are Deaf and Hard of Hearing (3). Historic approaches and current methods for teaching language and speech; knowledge of language and speech structures and principles needed by students who are deaf and hard of hearing; and an understanding of the development of language and speech in students who are deaf. Prerequisite: EHD 5110.

EHD 5341 Curriculum and Instruction of Students Who are Deaf and Hard of Hearing (3). Students will learn techniques for teaching learners who are deaf or hard of hearing including adaptations for instruction in content areas, multicultural instruction, development and implementation of IEPs. Prerequisites: EHD 5110, EHD 5247, and EHD 5402.

EHD 5344 Anatomy and Physiology for Teachers of Students Who are Deaf and Hard of Hearing (3). Exploration and study of the anatomy and physiology of all aspects of communication process. These aspects include the respiratory, phonatory, articulatory, acoustic, auditory, and neurologic systems. Prerequisite: EHD 5110.

EIA 5811 Equipment and Facilities Planning (3). Utilization of research, design, and technical knowledge and skill to plan and update technology education laboratory facilities and equipment. Prerequisite: Graduate standing. (F,S,SS)

EIA 5905 Directed Study in Technology Education (1-3). Identification, research, and reporting on problems of interest to the student in technology education. Subject to approval of program advisor. (F,S,SS)

EIA 5925L Special Topics in Technology Education (3). Selected topics related to instructional and technical areas. (F,S)

EIA 6683 Instructional Projects Development in Technology Education (3). Knowledge and skill in developing new and innovative instructional projects for use in technology education programs, grades 6-12. (F,S,SS)

EIA 6931 Analysis of Technology Education (3). Knowledge of trends, issues, problems in technology education at the national, state, and local levels. (F,S,SS)

ELD 5235 Strategies in Teaching Students with Learning Disabilities (3). Instructional strategies and approaches for teaching students with learning disabilities. Extensive field work is required. Prerequisites: EDG 5414 and Lab, EEX 6051, EEX 6227, EEX 6608. (AR)

ELD 6232 Advanced Theory and Practice: Specific Learning Disabilities (3). Major concepts in the area of specific learning disability, and skills in the application of these concepts to education. (S,SS)

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. (AR)

EME 5403 Introduction to Instructional Delivery Systems (3). A study of the rapidly expanding electronic media technology and its impact on instructional delivery. Prerequisite: EME 3402 or EME 6405. (AR)

EME 5602 Multimedia in the Classroom (3). Use videodisc and compact disc formats; hypermedia; high resolution still images and graphics; audio-program material and text to improve the quality of teaching and student learning. Prerequisites: EME 3402, EME 6405, or equivalent. Corequisite: Basic knowledge of McIntosh environment. (AR)

EME 5945 Special Topics in Computer Education (1-3). Offers an opportunity for teachers and trainers to participate in activities using specific computer applications. (AR)

EME 6405 Computers in the Classrooms (3). Learning to use microcomputers in a school setting. Emphasis on evaluating and documenting software; creation of classroom materials leading to development of useful software. (F,SS)

EME 6408 Microcomputers as Teaching Tools (3). This course develops ability to use the microcomputer as an object, medium, and manager of instruction in the classroom. Prerequisite: EME 6405 or EME 3402 or Permission of the instructor. (F,S)

EME 6407C Instructional Programming for Teachers (3). An introductory course for teachers to use BASIC to write educational programs appropriate to the teacher's area of specialization. Prerequisite: EME 3402

or EME 6405 or Permission of the instructor. (AR)

EME 6412 Educational Courseware Evaluation and Development (3). This course develops ability to select, evaluate, design, and utilize appropriate software for the school curriculum. Prerequisites: EME 6405 or EME 3402 and one computer language or Permission of the instructor. (AR)

EME 6628 Administrative and Instructional Applications of Technology (3). Topics of this course include data management, instructional management, teleconferencing, scheduling, and productivity software for educational leaders and school managers. (AR)

EME 6905 Directed Study: Computer Education (1-3). The course provides an opportunity for the student to plan and carry out an independent study project under direction. Prerequisite: Permission of the instructor. (F,S,SS)

EMR 5215 Strategies for Teaching Students with Mental Retardation (3). Familiarizes students with instructional strategies and specialized approaches for teaching students with mental retardation. Requires extensive field work. Prerequisites: EDG 5414, EDG 5414L, EEX 6051 and EEX 6608. (AR)

EMR 6852 Advanced Theory and Practice: Mental Retardation (3). Major concepts in the area of mental retardation and skills in the application of these concepts to education. (S,SS)

ESE 6215 Secondary School Curriculum (3). Examination of programs, trends, and developments in curriculum and instruction in the secondary school. Consideration and evaluation of innovations. (AR)

EVT 5078 Technical Education in American Society (3). Knowledge of the basic role and current status of technical education in an industrial democracy. Designed for students interested in post-secondary education. (S)

EVT 5168 Curriculum Development in Vocational Education (3). Knowledge and skill in analyzing, planning, and developing curriculum in an area of specialization. (S)

EVT 5255 Cooperative Vocational Education Programs (3). Knowledge and skill in the basic philosophy,

principles, processes, and procedures of the cooperative method in vocational and technical education. (F)

EVT 5265 Supervision and Coordination of Vocational Education Programs (3). Knowledge and skill in the supervision of personnel and the coordination of work to achieve institutional goals. (F)

EVT 5315 Improvement of Teaching Strategies in Health Occupations and Nursing Education (3). First in series of graduate courses designed to prepare qualified health professionals holding bachelor's degrees with professional education skills necessary to become competent teachers. Approved for "special methods of teaching health occupations education." (AR)

EVT 5317 Occupational Analyses in Health Occupations and Nursing Education (3). Provides opportunity to expand/update the knowledge base of health care system combining experiences in health care delivery system with curriculum updating. Professional licensure and liability insurance required. May be repeated. (AR)

EVT 5369 Vocational Educational Media (3). Knowledge and skill in selecting, developing, and utilizing vocational instructional media forms to communicate or demonstrate concepts. (S)

EVT 5650 Trends and Issues in Vocational Education (3). Knowledge of the basic philosophical and curricular trends and issues in vocational technical education at the international, national, state, and local levels. (F)

EVT 5664 Community Relations and Resources for Vocational Education (3). Knowledge and skill in utilizing community resources and establishing public relations procedures and practices to implement vocational education programs. (SS)

EVT 5695 International Comparative Vocational Education (3). Knowledge in comparison of vocational education in the United States in terms of purposes, systems, and problems with those of selected foreign countries. (S)

EVT 5769 Evaluation in Vocational and Technical Education (3). Knowledge and skill in the development of criteria, tests, measurements, and analysis of data to assess teaching, learning, and objectives. (F)

EVT 5905 Directed Study in Vocational/Technical Education (1-3). Identification, research, and reporting on a special problem of interest to the student. Subject to approval of program advisor. (F,S,SS)

EVT 5925 Special Topics in Vocational Education (1-6). Selected competencies related to instructional and technical areas. (AR)

EVT 5927 Special Topics in Health Occupations Education (1-3). Selected topics related to instructional and technical areas. (AR)

EVT 6157 Theory of Work and Careers in Vocational and Technical Education (3). Knowledge of concepts and principles of work, careers, and technology and related individual, social, and economic benefits with implications for vocational and technical education. Prerequisite: Graduate standing. (F)

EVT 6264 Administration of Vocational Education Programs (3). Knowledge of the principles, practices, functions, and roles of administration in the operation of vocational education programs. (S)

EVT 6318 Current Issues in Health Occupations and Nursing Education. (3). Designed to focus qualified health professionals holding a bachelor's degree with professional education skills necessary to identify and conduct research on current issues related to teaching in health occupations education. (AR)

EVT 6359 Vocational Education in a Multicultural Setting (3). Knowledge and skill in developing and modifying vocational education programs, materials, and practices for a multicultural setting. (SS)

EVT 6760 Research in Vocational Education (3). Knowledge and skill in identifying, defining, collecting, analyzing, and synthesizing research-related problems in vocational and adult education. (S)

EVT 6925 Special Topics in Vocational Education (1-6). Selected topics related to professional and program areas. (AR)

EVT 6930 Seminar in Vocational Education (3). Discussion of special instructional, curricular and/or administrative and supervisory problems and issues in vocational education. Prerequisite: Graduate standing. (F)

EVT 6946 Supervised Field Experience (3-6). Application and refinement of competencies in either classroom, laboratory, or administration and supervision, via school-based field experiences. Placement is subject to approval of program leader. (AR)

EVT 6947 Internship in Vocational Education (3). Knowledge and skill in a new leadership setting, relative to the student's selected area of emphasis. (AR)

EVT 7964 Comprehensive Doctoral Examination, Vocational and Technical Education Leadership. (0). Comprehensive Doctoral Examination in Vocational and Technical Education Leadership. Prerequisite: Permission of major professor. (F,S,SS)

EVT 7980 Doctoral Dissertation, Vocational and Technical Education Leadership. (6-9). Research for doctoral dissertation for those students approved for candidacy in the Vocational and Technical Education Leadership Program. Prerequisite: Advancement to Candidacy in doctoral program. (F,S,SS)

EVT 7985 Dissertation Defense; Vocational and Technical Education Leadership. (0). Defense of Dissertation. Prerequisite: Permission of major professor and EVT 7980. (F,S,SS)

FAD 5260 Family Development (3). 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. (AR)

FAD 5450 Human Sexuality (3). Provides a cognitive overview of human sexuality. Main emphasis is on the affective dimension—an exploration of attitudes and values related to sexuality. (AR)

FLE 5895 Bilingual Education Teaching Methodologies (3). Examination of various approaches to bilingual education, including specific school and classroom organizations. Development of specific instructional strategies for bilingual students. Issues in elementary, secondary, adult, vocational, and special education will also be addressed. (F)

FLE 5908 Directed Study in Foreign Language Education (1-3)(ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (F,S,SS)

FLE 5945 Supervised Teaching: Modern Languages (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Modified Master's Track Program and completion of prerequisite course work in education and subject matter area. (F,S)

FLE 6336 Methods of Teaching Modern Language (3). 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. Prerequisite: LIN 3010 or ENG 3500 or equivalent. (F,S)

FLE 6925 Special Topics in Second Language Education (1-3)(ARR). Production and application of materials and techniques in second language education in a laboratory or field setting. (S)

FLE 6938 Seminar in Second Language Testing (3). 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. (S,SS)

HEE 5335 Trends and Issues in Home Economics Education (3). Analysis of current social, economic, and educational trends and issues impacting upon home economics education and their implications for current and evolving practices. (F)

HEE 5360 Teaching Child Development (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5361 Teaching Consumer Education and Family Economics (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5362 Teaching Clothing and Textiles (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5363 Teaching Family Life Education (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences

that are current in content and educational strategies. (AR)

HEE 5364 Teaching Housing and Home Furnishings (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5365 Teaching Food and Nutrition (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies. (AR)

HEE 5905 Directed Study in Home Economics Education (1-3). Designed for advanced students in home economics education who wish to pursue specialized topics. Requires prior approval of instructor. (F,S)

HEE 5927 Special Topics in Home Economics Education (1-3). Development, organization, instruction, evaluation, and administration of programs related to selected aspects of home economics education. (S)

HEE 6156 Teaching Home Economics in Diverse Environments (3). Utilization of current educational developments, evolving strategies, materials, and resources to teach and evaluate home economics programs in diverse settings. (S)

HEE 6915 Research in Home Economics Education (3). Analysis and application of research pertaining to philosophy, curriculum, evaluation, and teacher education in home economics. Subject to approval of program advisor. (F)

HEE 6928 Special Topics in Home Economics Education (1-3). Development, organization, instruction, evaluation, and administration of programs related to selected aspects of home economics education. (F,S)

HEE 6937 Seminar in Home Economics Education (3). Application of selected instructional, curricular, and/or administrative principles and practices to the solution of problems of special interest to home economics educators. Subject to approval of program advisor. (S,AR)

HES 5319 Teaching Health Education (4). Students will select various modern techniques and tools for teaching health education in elementary and secondary school settings. (AR)

HME 5225 Problems of Home Management in Contemporary Society

(3). Influence of diversified cultural impact on management life styles, with emphasis on problems of management resources. Discussion of problems related to single-parent homes, retirement, poverty, death, working parents, migrant families, and other human situations. Prerequisites: COA 2410, HME 4230, or Permission of the instructor. (AR)

HME 5255 Independent Living for the Handicapped (3). Explores the home and personal living skills required to empower persons with mental and physical limitations to achieve their maximum independence. Suitable for students in special education, health, physical education, recreation, social work, home economics or anyone planning to work with elderly or handicapped. Approved for certification for teachers of the mentally retarded. (AR)

HSC 5455 Basic Driver Education (3). Content includes knowledge of the highway transportation system, rules and regulations. For Driver Education Certification endorsement. (AR)

HSC 5456 Advanced Driver Education (3). Content includes advanced skills for the teaching of driver's education. Prerequisite: HSC 5455. (AR)

HSC 5465 Administration and Supervision of Driver Safety Education (3). Content includes competencies for teacher preparation and improvement in driver and traffic safety education. Prerequisites: HSC 5455 and HSC 5456. (AR)

LAE 5355 Literacy Instruction in the Intermediate Grades (3). Provides understandings, skills, and dispositions needed to teach reading and writing to students who have advanced beyond beginning stages. Required for students in VE Modified Masters Program. Prerequisites: RED 5152 or equivalent. Corequisite: EEX 4940.

LAE 5415 Children's Literature (3). Required in Early Childhood, Elementary and Reading Education Master's Programs. Provides knowledge and skill in critical analysis of purposes, strategies for teaching and evaluation of children's literature.

LAE 5426 Multicultural Perspectives in Teaching Language and Literature for Young Adolescents (3). This course is designed to provide students with a theoretical and practical basis for teaching and reading multicultural

literature in the secondary school. Prerequisite: Admission into the program. (AR)

LAE 5465 Adolescent Literature in Middle/Secondary Schools (3). This course examines a wide variety of adolescent and young adult literature. Assists students in the development of instructional strategies for organizing literary experiences among young learners. Prerequisite: Admission into program. (AR)

LAE 5908 Directed Study in English Education (1-3) (ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (AR)

LAE 5927 Special Topics in Language Arts (3). Available to undergraduate and graduate education majors. Provides opportunities to develop skills and knowledge of reading/language arts instruction. Permission of the instructor required. (AR)

LAE 5945 Supervised Teaching: English Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite course work in education and subject matter area. (S)

LAE 6305 Instruction in Early Childhood Language Arts (3). Required in Master's program in Early Childhood Education. Refines skills related to program development, methods of teaching, selection of materials, and review of research in preschool, kindergarten and primary grades. Prerequisite: LAE 4314 or Permission of the instructor. (AR)

LAE 6319 Instruction in Elementary Language Arts (3). Elective in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research in elementary education. Prerequisite: LAE 4314 or Permission of the instructor. (AR)

LAE 6339 Teaching English in the Secondary School (3). Analysis of methods, programs, and materials for teaching English in the middle school and senior high school, and development of teaching skills. Prerequisite: Undergraduate course in methods of teaching English. (S)

LAE 6815 Computers in English and the Language Arts (3). Covers the basics needed to integrate computers in

teaching language arts. Emphasizes selecting and learning to use software to meet objectives in language, literature, and composition. Corequisite: English major or equivalent. (AR)

LAE 6925-26 Special Topics in English Education (1-3). Production and application of materials and techniques in English education in a laboratory or field setting. (AR)

LAE 6935 Seminar in English Education (3). Designed for advanced students, the readings and discussions will focus on policy issues and recent research in English education. Though primarily for experienced English teachers and supervisors, the course is open to administrators and others, with the consent of the instructor. (F)

LAE 7938 Doctoral Seminar in English Education (3). Advanced doctoral study of current theories and research related to English education. Prerequisites: LAE 6935, EDF 6486. (AR)

LEI 5440 Program Development in Parks, Recreation, and Sports (3). The development of specific programs in parks, recreation, and sports. (S)

LEI 5503 Liability and Law in Leisure, Recreation and Sports (3). A detailed analysis of legal issues related to leisure service, delivery and sport management including legal foundations, legal liability, disabled services and current case analysis. (S)

LEI 5510 Program Administration in Parks, Recreation and Sport (3). A detailed analysis of administrative procedures and responsibilities in connection with parks, recreation facilities and human resources. (F)

LEI 5595 Seminar in Parks and Recreation Management (3). A discussion of current problems, issues, and trends in administration of parks and recreation programs. (F)

LEI 5605 Philosophical and Social Bases of Parks and Recreation Planning (3). Concentration on major phases of predesign, design, development, actualization of park and recreation facilities. Course will explore funding, budget, site selection, layout, and maintenance. (F)

LEI 5716 Program Planning in Therapeutic Recreation (3). This course is designed to prepare the student for the development of systematically designed therapeutic recreation service delivery programs

from the viewpoint of the T.R. specialist and the T.R. administrator. (S)

LEI 5719 Client Assessment, Evaluation and Documentation in R.T. (3). The course addresses client assessment, documentation and evaluation from the direct service perspective, administrative requirements, and health care regulatory agency demands. (S)

LEI 5907 Directed Study in Parks and Recreation Management (3). 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 is required. (F,S,SS)

LEI 6577 Leisure Services Marketing (3). Advanced application of service marketing principles and practices to both public and private leisure service industry to improve both effectiveness and efficiency of operations. (S)

LEI 6725 Administrative Aspects of Therapeutic Recreation (3). An in-depth examination of issues related to the roles and responsibilities of the Activity Therapies/Therapeutic Recreation Administrator. (S)

LEI 6726 Problems, Issues and Trends in Therapeutic Recreation (3). An elective that provides an examination of current issues, trends and professionalization concerns in therapeutic recreation. (F)

LEI 6727 Disabling Conditions in Therapeutic Activity Services Administration.(3). In-depth review of disabling conditions for the development of in-service training in recreational therapy and adapted activity services. (S)

LEI 6816 Leisure Education and Facilitation Techniques for Therapeutic Recreation (3). A focused survey of leisure education and counseling as applied in therapeutic recreation delivery systems. (F)

LEI 6922 Supervised Field Experiences in Parks and Recreation Administration (3-6). A practical experience for individuals interested in administrative responsibilities. Permission of the instructor and Department Chairperson required. (AR)

LEI 6970 Thesis: Therapeutic Recreation (3-6). Elective in the Masters Recreational Therapy Track. Design and preparation of an original scholarly

investigation in recreational therapy. Prerequisite: EDF 5481. Corequisite: STA 6166. (AR)

MAE 5516 Diagnosis and Remediation in Mathematics (3). Available to undergraduate and graduate education majors. Provides study of symptoms, causes and consequences of children's math difficulties. Supervised case study included. Prerequisite: MAE 4310, or Permission of the instructor. (AR)

MAE 5655 Computers in Mathematics Education (3). Examines the use of computers (microcomputers) in secondary school mathematics. Designing, evaluating, and using varied types of programs in mathematics classes. Learning to use computers to design mathematics curriculum. (F)

MAE 5908 Directed Study in Mathematics Education (1-3). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (F,S,SS)

MAE 5923 Special Topics in Elementary Math Education (3). Available to undergraduate and graduate education majors. Provides opportunities to produce and apply materials and strategies in math ed in elem and middle schools. (AR)

MAE 5945 Supervised Teaching: Mathematics Education (6). Supervised teaching in a middle or senior high school. Prerequisites: Admission to the Alternate Track Master's Program and completion of prerequisite course work in education and subject matter area. (S)

MAE 6305 Instruction to Early Childhood Mathematics (3). Required in master's program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials and review of research, in preschool, kindergarten and primary grades. Prerequisite: MAE 4310 or Permission of the instructor. (AR)

MAE 6318 Instruction in Elementary Mathematics (3). Required in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education. Prerequisite: MAE 4310 or Permission of the instructor. (F,S,SS)

MAE 6336 Teaching Mathematics in the Secondary School (3). Analysis of methods, programs, and materials for teaching mathematics in the middle and

senior high school, and development of teaching skills. Prerequisites: Undergraduate secondary math methods and Permission of the instructor. (S)

MAE 6645C Workshop on Metric Education (1-3). A workshop on Metric Education: trends, teaching strategies, programs and materials. (AR)

MAE 6745 Current Trends and Issues in Mathematics Education (1-3). Trends and Issues in Math Curriculum, new textbooks, curriculum development projects; curriculum implementations and evaluations. Trends and Issues in Instruction, new techniques. Trends and Issues in Evaluations. "New tests", Research. (AR)

MAE 6899 Seminar in Mathematics Education (3). Designed to provide the advanced student with deeper understanding related to mathematics education. (SS)

MAE 7165 Curriculum Development in Mathematics Education (3). This course is required in the Ed.D. degree program in mathematics education. It will examine the history of K-12 mathematics curriculum and the current issues in mathematics education. Prerequisites: MAE 5655, MAE 6336, MAE 6899, and the entire advanced core.

MAE 5350 Educational-Vocational Counseling (3). Concepts and skills pertaining to vocational development, information systems, career education programs, educational-vocational counseling, and socio-psychological influences on career development. Prerequisite: MHS 5400.

MHS 5400 Counseling Skills and Techniques (3). Major theoretical concepts in counseling, competencies in relationship-building, interviewing, role-playing, simulation, and micro-counseling.

MHS 6200 Measurement and Appraisal in Counseling (3). 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. Prerequisite: EDF 5481.

MHS 6410 Behavioral and Cognitive Modification Techniques in Counseling and Education (3). Concepts and skills in using behavior modification, contingency contracting, cognitive behavior management, self-instructional

training, problem solving skills and parent and/or teacher consultation.

MHS 6411 Counseling and Consultation in Community Settings (3). Extended laboratory experiences stressing the development of behavioral/cognitive intervention skills in short-term counseling and consultation. Prerequisites: MHS 5400 and MHS 6410 or equivalent.

MHS 6427 Adult Psychopathology (3) Study of the causes, treatment, and diagnosis of emotional and behavioral disturbances in adults.

MHS 6428 Cross Cultural Counseling (3). Concepts and skills involved in counseling clients with backgrounds different from the majority culture. Prerequisite: MHS 5400.

MHS 6450 Substance Abuse Counseling (3). This course will educate mental health practitioners in understanding substances and to assist in counseling those who abuse them.

MHS 6470 Human Sexuality Counseling (3). Counseling issues, sexuality and resources in human sexuality relative to mental health professionals. Prerequisite: MHS 5400.

MHS 6500 Theories in Group Dynamics (3). Systematic examination of various theories and relevant research used in study of small group phenomena. Prerequisites: MHS 5350, MHS 6513. (AR)

MHS 6505 Advanced Group Development Laboratory (3). Development of advanced skills in the analysis and understanding of group process, function, and structures through actual observation of an ongoing group. Prerequisites: MHS 6513, MHS 6514. (AR)

MHS 6511 Group Counseling (3). Exploration of roles and function of group counseling in meeting client needs in a variety of settings. Prerequisites: MHS 5400, MHS 6513, MHS 6514.

MHS 6511L Group Counseling Lab (1). This course is designed to allow students to participate in a group counseling experience. It will be led and facilitated by a licensed mental health professional. Prerequisite: MHS 5400. Corequisite: MHS 6511.

MHS 6512 Organization Development in Education (3). Analysis of theory and practice of organization development and planned change in

educational systems. Prerequisites: MHS 6513 and MHS 6514. (AR)

MHS 6513 Human Interaction I: Group Process and Social Behavior (3). 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.

MHS 6514 Human Interaction II: Analysis of Group Participation (3). 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: MHS 6513.

MHS 6519C Principles of Design in Group Intervention: Role of the Consultant (3). 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: MHS 6513, MHS 6514, MHS 6500, and MHS 6513. (AR)

MHS 6629 Human Interaction III: Organizational Consultation (3). Theoretical concepts and skills in organizational development and change. Competencies in systems diagnosis and assessment, consultation, agenda setting, team building, decision-making, and feedback. Prerequisite: MHS 6513, MHS 6514. (AR)

MHS 6630 Program Evaluation in Counseling & School Psychology (3). Evaluation skills in the student's area of specialization, including competencies in designing evaluation proposals and conducting an actual program evaluation. Prerequisite: EDF 5481.

MHS 6700 Ethical, Legal and Professional Issues in Counseling (3). 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.

MHS 6800 Advanced Practicum in Counseling (9). Advanced competencies in counseling and consultation. Prerequisites: Course work completion.

MHS 6802 Personality Theories (3). A survey of the various cognitive, psychodynamic, behavioral, humanistic, existential and family systems

theories of personality development and change are examined.

MHS 6820 Supervised Field Experience in Counseling (9). Demonstration of the full range of competencies learned throughout the program in Counseling. Internship placements include a variety of field settings. Prerequisites: MHS 6800 and course work completion.

MHS 6910 Directed Study in Counseling and School Psychology (1-6). Competencies contracted for between a student and an instructor in accordance with the student's individual needs. Permission of the instructor required.

MHS 6930 Special Topics in Counseling and School Psychology (1, repeatable to 9). Special topics in relation to counseling or school psychology. Permission of the instructor required.

MHS 6xxx Foundations of Mental Health (3). Examination of the significant events in the history of mental health care that has contributed to the development of the specialty within the counseling profession.

MUE 5907 Directed Study in Music Education (1-3). Individual investigation in one or more areas of music education. (F,S,SS)

MUE 5928 Special Topics in Music Education (2). Applications of materials and techniques in music in a laboratory or field setting. (AR)

MUE 5945 Supervised Teaching: Music Education (6). Supervised teaching. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite course work in education and the subject matter area. (S)

MUE 6305 Instruction in Early Childhood Music (3). Elective in masters program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in preschool, kindergarten and primary grades. (AR)

MUE 6316 Instruction in Elementary Music (3). Elective in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education. (AR)

MUE 6345 The Methodology and Analysis of Music Teaching (3). A data based analysis of methods and

programs in the public schools and the development of music pedagogy skills. Reviews current research findings and applies them where applicable to the field of Music Education. Required for the Masters Degree. Prerequisite: Undergraduate Degree. (F)

MUE 6785 Research in Music Education (3). A survey of current research and past research trends in music education. Applied training in techniques of design and data analysis. (AR)

MUE 6815 Psychological Foundations of Music Behavior (3). Overview of acoustical, psychological and physiological foundations of music as it influences human behavior. Covers musical acoustics, anatomy of human hearing, music perception, reactions, personality, mood and powers of music discrimination. Required for the Master of Science in Music Education degree. Prerequisite: Undergraduate degree. (S)

MUE 6925-26 Special Topics in Music Education (1-3). Applications of new, innovative or contemporary materials and/or techniques in music education. May be used for elective credit with permission of the program director. (AR)

MUE 6938 Seminar in Music Education (3). Seminar topics concerning historic music education programs in the United States and other countries, as well as current issues and problems facing the music educator. Required for the Master of Science in Music Education degree. Prerequisites: Undergraduate degree. (S)

MUE 6XXX Thesis in Music Education (1-3). Research and paper for Masters Candidates in Music Education. Prerequisite: MUE 6785 and Permission of Graduate Advisor in Music Education.

PEP 5115 Health/Fitness Instruction (3). Provides the knowledge and skills to evaluate and prescribe health and fitness enhancement programs for healthy adults. Prerequisite: PET 3351. (F)

PEP 5116 Exercise Specialist (3). Provides the knowledge to prescribe exercise for persons with medical limitations, particularly cardiovascular disease. Prerequisites: PET 3351 and PET 5387. (S)

PEP 5117 Fitness for Older Adults (3). The course explores the value of physical activity for improving the

physical and mental well being of older adults. Emphasis is placed on exercise prescription and supervision of programs for those working with older adults. Prerequisite: PET 3351. (AR)

PET 5206 Youth Sports (3). Provides insight into the issues surrounding youth sport programs including: program development and analysis, parental influences, relationship of sport to psycho-socio development. (AR)

PET 5216 Sports Psychology (3). Course includes an analysis of psychological variables that influence physical performance. The course is intended for prospective physical educators, coaches, and others interested in motor performance. (S)

PET 5238C Motor Learning for Sport Performance (3). The emphasis in this course is on current and advanced topics related to motor skill acquisition. Laboratory practices and applied techniques related to teaching are examined. (F)

PET 5256 Sociology of Sport (3). Students will be introduced to basic principles of the sociological bases of sport and physical activity. (S)

PET 5387 Exercise Test Technology (3). Provides the knowledge and skill required to conduct an EKG monitored graded exercise test. Prerequisite: PET 3351. (F)

PET 5426 Curriculum in Physical Education (3). Emphasis on curriculum design and development for grades 6-12 Physical Education. Includes examination of objectives, content, methods of teaching and evaluation.

PET 5436 Physical Education Curriculum: K-8 (3). Examination of objectives, content, methods of teaching, and evaluative techniques in physical education. Emphasis on curriculum design and development.

PET 5447 Curriculum in Physical Education 6-12 (3). To understand the theoretical and practical aspects of designing, developing, and implementing curriculum for the secondary school.

PET 5625 Sports Medicine (3). The class includes topics related to the prevention and treatment of non-traumatic athletic injuries. Practical applications in laboratory experiences required. Prerequisite Exercise Physiology. (S)

PET 5716 Analysis and Observation of Teaching in Physical Education

(3). Analysis of the teaching-learning process in physical education. Emphasis on systematic observation instruments and guidelines for systematic development of instructional skills. (F)

PET 5906 Directed Study in Physical Education (1-3). Students will work independently on a topic concerning some phase of physical education or sport under the guidance of a faculty member. Registration is by permission of advisor. (F,S,SS)

PET 5925 Practicum in Physical Education (1-3). Production and/or application of materials and techniques for physical education in a classroom and/or field setting. (F,S)

PET 5931 Special Topics in Exercise Physiology (1-3). Designed to present contemporary issues and practices in exercise physiology. Prerequisite: PET 3360. (AR)

PET 5936 Special Topics in Physical Education (1-3). Designed to present contemporary issues and practices in physical education and sport. (AR)

PET 5XXXC Advanced Personal Training (3). This class is designed to prepare students for the National Strength Professionals Associations Certified Conditioning Specialist Examination. Prerequisite: PET 3351 or equivalent.

PET 5XXXC Comprehensive Conditioning of Elite Athletes (3). The course prepares a student to develop a comprehensive conditioning program including metabolic, speed, flexibility, plyometric and resistance training. Prerequisite: PET 3351.

PET 6597 Survey of Research in Physical Education (3). Methods and techniques used in research in physical education. Emphasis on effective use of resources and writing techniques. (F)

PET 6775 Health Fitness Director (3). Designed to prepare the student for ACSM's Health Fitness Director certification. Prerequisite: PET 3351, and PEP 5115. (SS)

PET 6785 Exercise Program Director (3). Designed to prepare the student for ACSM's Exercise Program Director certification examination. Prerequisite: PET 3351, PET 5387, and PEP 5115. (SS)

PET 6925-27 Practicum in Physical Education (1-3). Production and/or application of materials and techniques

for physical education in a classroom and/or field setting. (F,S)

PET 6932 Seminar in Physical Education (3). Students will participate in the exploration, examination, and discussion of problems, issues, and trends in physical education and sport. (AR)

PET 6940 Internship in Exercise Physiology: Graduate (3-6). Clinical experience, supervised by physician, designed to provide the student with competence in exercise prescription and leadership in preventive and rehabilitative outpatient exercise programs. Prerequisites: PET 5387, PEP 5115, and PEP 5116. (F,S,SS)

PET 6944 Supervised Field Experience (3-9). 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. (AR)

RCS 6030 Rehabilitation Counseling: Principles and Practices (3). An orientation to the rehabilitation process including a survey of the history, principles, philosophy, and legal aspects of rehabilitation counseling and related fields.

RCS 6625 Service Delivery and Case Management in Rehabilitation Counseling (3). Evaluation of disability and rehabilitation potential in the context of service delivery and case management in the vocational rehabilitation process. Prerequisite: RCS 6030 Rehabilitation Counseling: Principles and Practices.

RED 5304 Literacy Instruction in the Primary Grades (3). Provides understandings, skills and dispositions needed to teach reading and writing to students who are beginning to become literate. Required for students in VE Modified Masters Program. Prerequisites: EDG 5415 and EDG 5415L. Corequisite: EEX 4940.

RED 5447 Analysis and Production Reading Materials (3). Elective in graduate program in Reading Education. Exploration, creation, and evaluation of basic reading materials. Prerequisite: RED 4150 or equivalent. (AR)

RED 5448 Teaching Reading by Computer (3). Elective in graduate program in Reading Education. Exploring literacy development with technology. Evaluation and creation of computer programs for teaching read-

ing in grades 4-12. No prior computer experience is required. (AR)

RED 5911 Directed Study in Reading (1-3). Elective in Reading Education. Directed study in area of reading instruction. Permission of the instructor required. (AR)

RED 5925 Special Topics in Reading (3). Elective in master's program in Reading Education. Study in a specified area of reading education. (AR)

RED 6247 Organization and Supervision of Reading Program (3). Elective in graduate program in Reading Education. Philosophy, design, and operation of public and private reading programs. Prerequisite: RED 6155 or equivalent. (AR)

RED 6305 Instruction in Early Childhood Reading (3). Required in graduate program in early childhood education. Program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood reading education. Prerequisite: RED 4150 or equivalent. (AR)

RED 6314 Instruction in Elementary Reading (3). Required in graduate program in elementary and reading education. Program development, methods of teaching, selection of materials, and review of research in elementary Reading Education. Prerequisite: RED 4150 or equivalent. (AR)

RED 6336 Reading in the Content Areas (3). Required in graduate programs in Elementary and reading education and in secondary Modified Master's Programs. Strategies for developing the reading abilities of students in specific subject areas. Prerequisite: RED 6314 For Reading Education majors. (AR)

RED 6515 Programs of Remediation in Reading (3). Required in graduate program in reading education. Knowledge and strategies necessary to improve students' reading abilities. Prerequisites: RED 6155 or 6305, RED 6546, or their equivalents. (AR)

RED 6546 Diagnosis of Reading Difficulty (3). Required in graduate program in reading education. Knowledge and strategies necessary to assess students' reading abilities. Prerequisite: RED 6155 or 6305, or its equivalent. (AR)

RED 6747 Research in Reading (3). Required in doctoral program and

thesis track of Reading Education master's program. Elective in standard Master's track. Includes reading research, critique, methodology and planning. Prerequisite: EDF 5481. (AR)

RED 6805 Practicum in Reading (3). Elective in graduate program in reading education. Supervised experience as reading professional in teaching, assessing, supervising, or research role. Prerequisites: RED 6314. (F,S)

RED 6845 Clinical Procedures in Reading (3). Elective in graduate program in Reading Education. Reading diagnosis, instruction, and reevaluation in a clinical setting. Prerequisites: RED 6515, RED 6546. (AR)

RED 6931 Seminar in Reading Education (3). Required in doctoral program and thesis track of reading master's program. Elective in standard Master's track. Deals with theory and practice of reading instruction. Prerequisites: Permission of the instructor and RED 6747. (AR)

RED 6932 Critical Issues in Reading Education (3). Elective in Reading Education master's program. Explores topics in specific reading education. (AR)

RED 6971 Thesis in Reading Education (6). Required in thesis track of reading master's program. Design, implementation, and written report of an original research investigation in reading education. Prerequisites: Advanced graduate standing and consent of instructor. (F,S,,SS)

RED 7912 Doctoral Directed Study in Reading (1-6). An elective course in the reading education doctoral program. Directed research in a specified area of reading education. Repeatable. Prerequisite: Admission to reading education doctoral program. (AR)

RED 7938 Doctoral Seminar in Reading Education (3). Required in Reading Education doctoral track. Advanced study in current theories and research related to reading education. Prerequisites: RED 6747, RED 6931. (AR)

SCE 5905 Directed Study in Science Education (1-3). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (F,S,SS)

SCE 5930 Special Topics in Elementary Science Education (3). Available

to undergraduate and graduate education majors. Provides knowledge and skills, content, strategies and materials for teaching elementary science. Permission of the instructor required. (AR)

SCE 5945 Supervised Teaching: Science Education (6). Supervised teaching in a middle or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite course work in education and subject matter area. (F,S)

SCE 6306 Instruction in Early Childhood Science (3). Required in masters program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in preschool, kindergarten and primary grades. Prerequisite: SCE 4310 or Permission of the instructor. (AR)

SCE 6315 Instruction in Elementary Science (3). Required in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education. Prerequisite: SCE 4310 or Permission of the instructor. (AR)

SCE 6635 Teaching Science in the Secondary School (3). Analysis of methods, programs, and materials for teaching science in the junior and senior high school, and development of teaching skills. (F,SS)

SCE 6637 Science Education and Community Resources (3). This course examines the utilization and cultivation of community resources to meet science education goals for various populations. (AR)

SCE 6925-26 Workshop in Science Education (1-3). Production and application of materials and techniques in science education in a laboratory or field setting. (AR)

SCE 6931 Special Topics in Science Education (3). An individual topic or limited number of topics not otherwise offered in the curriculum that facilitate science teaching in the elementary school will be selected. (AR)

SCE 6933 Seminar in Science Education (3). 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. (S)

SCE 7165 Curriculum Development in Science Education (3). Analysis of theoretical basis of curriculum development in Science Education Evaluation of currently available material. Development and testing of science curriculum materials. Prerequisites: SCE 6933, EDF 6486. (S)

SCE 7761 Research in Science Education (3). Application of research methodology to Science Education. Analysis of current research. Development of research proposal in Science Education. Conduct field study. Prerequisites: SCE 6933, EDF 6486, SCE 7165. Corequisite SCE 7938. (SS)

SCE 7938 Doctoral Seminar in Science Education (3). Advanced doctoral seminar in current theories and research related to science education. Prerequisites: SCE 6933, EDF 6486. (SS)

SDS 5460 Crisis Counseling and Intervention (3). Prevention and intervention strategies in crisis situations including child abuse and neglect, suicide, substance abuse, AIDS, and personal loss. (F)

SDS 6411 Counseling Children and Adolescents (3). Theory and application of counseling elementary age children and adolescents including family issues and interventions, legal and ethical considerations and counseling at-risk and exceptional children. Prerequisite: MHS 5400.

SDS 6700 Organization and Administration of School Counseling (3). Components, elements and interventions of comprehensive, developmental school guidance program models. Emphasis on organization, administration, and evaluation of system, components, and services. (F,SS)

SDS 6784 School Law for Student Service Workers (3). Overview of current legal issues and problems for school counselors, psychologists and social workers. (SS)

SDS 6800 Advanced Practicum in Counseling (3). Advanced competencies in counseling and consultation. Prerequisites: Course work completion. (F,S,SS)

SDS 6820 Supervised Field Experience in Counselor Education (6). Demonstration of the full range of competencies learned throughout the program in Counseling. Internship

placements include a variety of field settings. (F,S)

SDS 6930 Special Topics in Counseling and School Psychology (3, repeatable to 9). Special topics in relation to counseling or school psychology. (F,S,SS)

SPS 6191 Psycho-Educational Assessment I: Intellectual (3). Competencies in the assessment of intellectual ability and adaptive behavior in children. Corequisite: SPS 6191L for School Psychology majors. No corequisite for other majors. (F)

SPS 6191L Psycho-Educational Assessment I: Lab (2). Practical skills in the assessment of intellectual ability and adaptive behavior in children. Corequisite: SPS 6191. Lab fee required. (F)

SPS 6192 Psycho-Educational Assessment II: Process (3). Competencies in the assessment of psycho-educational processes in children and their relationship to intellectual ability. Corequisite SPS 6192L for School Psychology majors. No corequisite for other majors. Prerequisite: SPS 6191. (S)

SPS 6192L Psycho-Educational Assessment II: Lab (2). Practical skills in the assessment of psycho-educational processes in children. Emphasis on assessing disorders in the visual, auditory, haptic, language, and sensory integration areas. Corequisites SPS 6191, SPS 6191L. Lab fee required. (S)

SPS 6193 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 6193L. Prerequisites: SPS 6191, SPS 6192. (SS)

SPS 6193L Psycho-Educational Assessment III: Lab (3). Practical skills in projective and behavioral assessment of students within the school setting. Corequisite: SPS 6193. Prerequisites: SPS 6191, SPS 6192. Lab fee required. (SS)

SPS 6199 Family-School Consultation and Collaboration (3). Designed to develop essential communicative/interactive interpersonal skills, as well as collaborative problem-solving skills, in special education, counseling, and school psychology graduate students. Corequisite: Graduate standing. (AR)

SPS 6678 Supervised Field Experience in School Psychology (1-10). Demonstration of the full range of competencies learned throughout the program in School Psychology. Internship placements include a variety of field settings. (F,S)

SPS 6805 Professional Problems in School Psychology (3). Competencies in regard to the development, role and function of school psychologists. General orientation and legal and ethical issues included. (F)

SPS 6930 Academic and Behavioral Interventions in the Schools (3). An introduction to effective academic and behavioral school-based interventions including a functional assessment of behavior. (SS)

SSE 5908 Directed Study in Social Studies Education (1-3) (ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor. (F,S,SS)

SSE 5929 Workshop in Elementary Social Studies Education (3). Available to undergraduate and graduate education majors. Provides knowledge and skills, content, strategies and materials for teaching social studies. Permission of the instructor required. (AR)

SSE 5945 Supervised Teaching: Social Studies Education (6). Supervised teaching in a middle or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite course work in education and subject matter area. (S)

SSE 6305 Instruction in Early Childhood Social Studies (3). Required in masters program in early childhood education. Refines skills related to program development, methods of teaching, selection of materials, and review of research, in preschool, kindergarten and primary grades. (AR)

SSE 6355 Instruction in Elementary Social Studies (3). Required in masters program in elementary education. Refines skills related to program development, methods of teaching, selection of materials, and review of research in elementary education. (AR)

SSE 6394 Social Studies in Other Nations (3). The course will examine the concept of social studies as a subject area in elementary and secondary schools found in both developed and developing nations.

Comparisons and contrasts will be made. Prerequisites: SSE 6633, SSE 6939. (AR)

SSE 6633 Teaching Social Studies in the Secondary School (3). Analysis of methods, programs, and material for teaching social studies in the middle and senior high school, and development of teaching skills. (S,SS)

SSE 6795 Seminar: Research in Social Studies Education (3). The course will examine research in social studies education. The course will serve as a lab for developing a dissertation research design. Prerequisite: EDF 5481. Corequisites: EDF 6486, EDF 6403 or EDF 6475. (AR)

SSE 6924 Workshop in Content, Method, and Materials of Teaching Social Studies (1-3). Focus on content, methods, and materials needed for teaching social studies in the elementary school, K-6. (AR)

SSE 6925-28 Workshop in Social Studies Education (1-3). Production and application of materials and techniques in social studies education in a laboratory or field setting. (AR)

SSE 6939 Seminar in Social Studies Education (3). 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. (S)

SSE 7938 Doctoral Seminar in Social Studies Education (3). Advanced doctoral study in current theories and research related to social studies education. Prerequisites: SSE 6939, EDF 6486. (AR)

TSL 5142 Curriculum Development in English as a Second Language (3). Description, analysis, planning, design, and evaluation of curriculum in English as a second language (K-adult). (F,S)

TSL 5245 Developing ESOL Language and Literacy (3). This course examines how linguistic theories are applied in the classroom for the development of language and literacy in language minority students. (F,S)

TSL 5371 Special Methods of TESOL (3). Investigation of modern techniques for the teaching of oral and written communication in English to non-native speakers of English, in-

cluding the evaluation and development of materials for English to speakers of other languages. Issues in elementary, secondary, adult, vocational, and special education will also be addressed. (F,S)

TSL 5938 Principles of ESOL Testing (3). Advanced study and research on current issues in the field of ESOL testing. Topics include principles and practices of ESOL testing for classroom use, communicative language test development, criteria for evaluating testing instruments, and study of standardized ESOL tests. Prerequisites: TSL 5371 or TSL 4340. (S)

TSL 6350 Troublesome English: Grammar for ESOL Teachers (3). Course is designed to enhance ESOL teachers' ability to understand and explain the operation of American English grammar using an inductive approach of exploration and discovery. (AR)

TSL 6908 Field Component (3). Provides opportunity to carry out a variety of projects designed to develop critical reflection about teaching beliefs and practices in an ESOL classroom environment. Prerequisites: Admission to MS/TESOL program and completion of required course work. (F,S)

College of Education

- Dean** **Linda P. Blanton**
- Associate Dean**
- Academic Affairs** **Wendy Cheyney**
- Assistant Dean**
- Student, School, and Community Services** **M. A. Bilbao**
- Assistant Dean**
- Budget and Grants Administration** **Carmen Mendez**
- Chairpersons**
- Educational Foundations and Professional Studies** **John A. Carpenter**
- Educational Leadership and Policy Studies** **Peter Cistone**
- Educational Psychology and Special Education** **Patricia Barbetta**
- Elementary Education** **Lynne D. Miller**
- Health, Physical Education, and Recreation** **Robert M. Wolff**
- Subject Specializations** **Mohammed K Farouk**
- Coordinators/Directors**
- Coordinator of Doctoral Programs** **Frank DiVesta**
- Director of Internship and Student Teaching** **Karyl Boynton**
- Associate Director of Student Services** **Marta Vazquez-Syms**
- Faculty**
- Alacaci, Cengiz, Ph.D.** (*University of Pittsburgh*), Assistant Professor, Mathematics Education
- Alvarez, Carlos, M., Ph.D.** (*University of Florida*), Associate Professor, International, Intercultural Development Education, Educational Psychology, Educational Foundations and Professional Studies
- Badia, Arnhilda, Ph.D.** (*University of North Carolina-Chapel Hill*), Associate Professor, Modern Language Education, Subject Specializations.
- Banya, Kingsley, Ph.D.** (*University of Toronto*), Professor and Chairperson, Curriculum and Instruction, Educational Leadership and Policy Studies
- Barbetta, Patricia, Ph.D.** (*Ohio State University*), Associate Professor, Special Education for the Emotionally Handicapped, Special Education
- Bilbao, Maria A., Ed.D.** (*Florida International University*), Assistant Dean, Elementary Education, Early Childhood Education
- Bliss, Leonard, Ph.D.,** (*Syracuse University*), Professor, Statistics and Research Design
- Blitzer, Laura, Ph.D.** (*University of Georgia*), Assistant Professor, Health, Physical Education, and Recreation
- Boynton, Karyl, M.A.** (*University of North Florida*), Director of Internship and Student Teaching
- Blanton, Linda P., Ed.D** (*Indiana University*), Professor and Dean, Special Education
- Blucker, Judith A., Ph.D.** (*Florida State University*), Professor, Health and Physical Education, Curriculum and Instruction, and Vice Provost, Budget.
- Campbell, Richard, Ed.D.** (*Indiana University*), Professor, Science Education, Elementary Education, Dean of Graduate Studies
- Carpenter, John A., Ph.D.** (*University of Southern California*), Professor and Chair, Educational Foundations, International Development Education, Higher Education Leadership, Educational Foundations and Professional Studies
- Challenger, Lisa, M.A., Ed.M.** (*Columbia University*), Visiting Instructor, Early Childhood Education
- Chang, David Y., M.F.A., MS** (*Florida International University*), Professor, Art Education, Subject Specializations
- Cheyney, Wendy, Ed.D.** (*University of Miami*), Associate Professor, Associate Dean, Special Education for Learning Disabilities, Educational Psychology and Special Education
- Cistone, Peter J., Ph.D.** (*Pennsylvania State University*), Professor, Educational Leadership, Educational Leadership and Policy Studies
- Cohen, Judy, Ed.D.** (*Florida International University*), Special Education Field Placement Specialist
- Correnti, Richard J., Ph.D.** (*Ohio State University*), Senior Lecturer Higher Education, Educational Leadership and Policy Studies
- DeFrancesco, Charmaine, Ph.D.** (*Florida State University*), Associate Professor, Movement Science, Sport Psychology, Health, Physical Education, and Recreation
- DeVarona, Frank, Ed.S.** (*University of Florida*), Visiting Associate Professor, Social Studies Education, Subject Specializations
- Subject Specializations**
- DiVesta, Frank, Ph.D.** (*Cornell University*), Coordinator of Doctoral Programs
- Divita, Charles, Jr., Ph.D.** (*Florida State University*), Professor, Adult Education and Human Resource Development, Educational Leadership and Policy Studies
- Dottin, Erskine S., Ph.D.** (*Miami University, Oxford, OH*), Professor, Educational Foundations, Politics of Education, Educational Foundations and Professional Studies
- Dustin, Daniel L., Ph.D.** (*University of Minnesota*), Professor, Parks and Recreation Management, Health, Physical Education, and Recreation.
- Dwyer, Eric, Ph.D.** (*University of Texas*), Foreign Languages, Japanese, ESL, Modern Language Education, Subject Specializations
- Escoter, Miguel Angel A., Ph.D.** (*University of Nebraska*), Professor, Educational Foundations, International and Intercultural Development Education and Research, Educational Foundations and Professional Studies
- Fain, Stephen M., Ed.D.** (*Teachers College, Columbia University*), Professor, Curriculum and Instruction, Educational Leadership and Policy Studies
- Farouk, Mohammed K., Ed.D.** (*West Virginia University*), Associate Professor, Social Studies/Global Education, Chairperson, Subject Specializations
- Farrell, Robert V., Ph.D.** (*Teachers College, Columbia University*), Associate Professor, Social Foundations of Education, Educational Foundations and Professional Studies
- Feinberg, Rosa Castro, Ph.D.** (*University of Miami*), Associate Professor, Educational Foundations, Bilingual Education/TESOL, Educational Foundations and Professional Studies
- Fine, Joyce, Ed.D.** (*Florida International University*), Associate Professor, Reading and Language Arts Education, Elementary Education
- Fisher, Allen, Ph.D.** (*University of Connecticut*), Associate Professor, Educational Leadership, Educational Leadership and Policy Studies
- Gallagher, Jo D., Ph.D.** (*Florida State University*), Associate Professor, Adult Education and Human Resource Development, Educational

- Leadership and Policy Studies*
- Gallagher, Paul D., Ph.D.** (Florida State University), Associate Professor, Educational Research, Educational Leadership and Policy Studies, and Senior Vice President, Business and Finance
- Garcia, Delia C., Ed.D.** (Florida International University), Assistant Professor, Educational Foundations, Urban Education, TESOL
- Gavilan, Marisal, Ed.D.** (University of Tennessee), Associate Professor, Educational Psychology and Bilingual Education/TESOL, Educational Psychology and Special Education
- Greenberg, Barry, Ph.D.** (New York University), Professor, Educational Research and Community College Teaching, Educational Leadership and Policy Studies
- Gregg, Gail, Ph.D.**, (Florida State University), Associate Professor, English Education, Subject Specializations
- Hammons, Frank T., Ed.D.** (Virginia Polytechnic Institute and State University), Associate Professor, Vocational Industrial Education, Subject Specializations
- Harlin, Rebecca P., Ph.D.** (University of Florida), Associate Professor, Early Childhood Education, Elementary Education
- Hasson, Deborah J., M.A.** (Florida International University), Instructor, Educational Foundations, Urban Education, TESOL
- Hibbler, Dan, Ph.D.** (University of Illinois), Assistant Professor, Parks and Recreation, Health, Physical Education and Recreation
- Jiang, Zhonghong, Ph.D.** (University of Georgia), Associate Professor, Mathematics Education and Computer Education, Subject Specializations
- Kenny, Maureen, Ph.D.** (Nova-Southeastern University), Assistant Professor, Mental Health Counseling, Educational Psychology and Special Education.
- Killian, Patricia A., Ph.D.** (University of Texas-Austin), Assistant Professor, Teaching English as Second Language, Educational Foundations and Professional Studies
- Kossack, Sharon Wall, Ph.D.** (University of Georgia), Professor, Reading and Language Arts Education, Elementary Education
- Krauss, Lisbeth Dixon, Ph.D.** (University of Florida), Associate Professor, Literacy Education
- Lazarus, Philip J., Ph.D.** (University of Florida), Associate Professor, Educational Psychology and School Psychology, Educational Psychology and Special Education
- Lewis, Scott P., Ph.D.** (University of California-Los Angeles), Assistant Professor, Science Education, Elementary Education
- Lopez, Richard, Ed.D.** (Florida Atlantic University), Associate Professor, Exercise Physiology, Health, Physical Education, and Recreation
- Lucky, Luretha, Ed.D.** (Arizona State University), Associate Professor, Special Education for Mental Retardation, Educational Psychology and Special Education
- Marshall, Nancy, Ph.D.** (Cornell University), Associate Professor, Reading and Language Arts Education, Elementary Education
- Martinez-Perez, Luis A., Ph.D.** (Florida State University), Associate Professor, Science Education, Subject Specializations
- McClintock, C. Edwin, Ph.D.** (University of Georgia), Professor, Mathematics Education and Computer Education, Subject Specializations
- McEachern, Adriana, Ph.D.** (University of Florida), Associate Professor, Counselor Education and Educational Psychology, Educational Psychology and Special Education.
- Mendez, Carmen, MPA** (Florida International University), Instructor Public Administration, and Assistant Dean for Budget and Grants Administration
- Mendoza, Alicia, Ed.D.** (University of Miami), Associate Professor, Early Childhood Education, Elementary Education
- Miller, Lynne D., Ph.D.** (University of Arizona), Associate Professor Literacy Education, Choirperson Elementary Education
- Mohamed, Dominic A., Ph.D.** (University of Minnesota), Associate Professor, Vocational Administration and Supervision and Vocational Education, Subject Specializations
- Moseley, Bryan, Ph.D.** (University of California at Santa Barbara), Assistant Professor, Educational Psychology
- O'Brien, George E., Ph.D.** (University of Iowa), Associate Professor, Science Education, Elementary Education
- Pelaez-Nogueras, Martha, Ph.D.** (Florida International University), Assistant Professor, Educational Psychology, Educational Psychology and Special Education.
- Perez-Prado, Aixa, Ph.D.** (Florida State University), Assistant Professor, Teaching English as a Second Language, Educational Foundations and Professional Studies
- Poirier, Sandra, Ed.S.** (Florida International University), Visiting Instructor, Home Economics Education, Subject Specializations
- Ritzi, William M., M.S.** (Florida International University), Instructor, Art Education, Elementary Education
- Rocco, Tonette**, (Ohio State University), Assistant Professor, Adult Education and Human Resource Development
- Rosenberg, Howard, Ed.D.** (Teachers College, Columbia University), Associate Professor, Special Education for Mental Retardation, Educational Psychology and Special Education
- Rossatto, Cesar, Ph.D.** (University of California-Los Angeles), Assistant Professor, Social Studies Education
- Ryan, Colleen A., Ph.D.** (Ohio State University), Associate Professor, Educational Psychology, Educational Foundations and Professional Studies
- Sandiford, Janice R., Ph.D.** (Ohio State University), Associate Professor, Health Occupations Education, Computer Education, Higher Education, Educational Leadership and Policy Studies.
- Sandler, David, M.S. Ed.** (Florida International University), Instructor, Exercise Physiology, Health, Physical Education, and Recreation
- Slater, Judith J., Ed.D.** (University of Florida), Associate Professor, Curriculum and Instruction, Educational Leadership and Policy Studies
- Smith, Douglas H., Ph.D.** (Ohio State University), Associate Professor, Adult Education and Human Resource Development, Educational Leadership and Policy Studies
- Spears-Bunton, Linda, Ed.D.** (University of Kentucky), Associate Professor, English Education, Subject Specializations
- Strichart, Stephen S., Ph.D.** (Yeshiva University), Professor, Special Education for Learning Disabilities, Educational Psychology and Special

Education

Taskakkori, Abbas, (*University of North Carolina, Chapel Hill*),
Professor, Educational Research

Thirunarayanan, M.O., Ph.D.,
(*Arizona State University*), *Associate Professor, Learning Technologies, Subject Specializations*

Toomer, Jethro, Ph.D. (*Temple University*), *Professor, Educational Psychology and Community Mental Health Counseling, Educational Psychology and Special Education*

Trigoboff, Debra, M.S. Ed.
(*Northwest Missouri State University*),
Instructor, Sports Medicine, Health Physical Education, and Recreation.

Vos, Robert. Ed.D. (*Rutgers University*), *Associate Professor, Learning Technologies, Subject Specializations*

Wolff, Robert M., Ph.D. (*Ohio State University*), *Associate Professor and Chairperson, Parks and Recreation, and Sport Management, and Chairperson, Health, Physical Education and Recreation*

Woods, S. Lee, Ed.D. (*Rutgers University*) *Associate Professor, Educational Foundations and General Methodology, Educational Foundations and Professional Studies*

Yongue, Bill Ed.D. (*West Virginia University*), *Assistant Professor, Elementary Physical Education, Health, Physical Education and Recreation.*

College of Engineering

College of Engineering

Richard Irey, *Interim Dean*
 Kia Makki, *Associate Dean*
 James R. Story, *Associate Dean*
 Lourdes A. Meneses, *Assistant Dean*

The College of Engineering is committed to the development of professionals who will serve the community in a wide variety of fields. In addition, there are units in the College solely devoted to research and other creative activities.

Doctoral degrees in the College of Engineering can be earned in the fields of Civil Engineering, Electrical Engineering (Computer Engineering Track) and Mechanical Engineering.

Master's degrees can be earned in the following fields of study:

- Biomedical Engineering
- Civil Engineering
- Computer Engineering
- Construction Management
- Electrical Engineering
- Engineering Management
- Environmental Engineering
- Industrial Engineering
- Mechanical Engineering

The programs of the College are directed towards the practical use of scientific, engineering and technical principles to meet the objectives of industry, business, government and the public.

The College provides each student with the opportunity to develop marketable skills and to obtain an education which will prepare him or her for a rewarding career and personal growth.

Underlying the programs of the College is a recognition that the growing impact of technology upon the quality of life is increasing and that the proper application of technology is critical to meeting current and emerging human needs.

The College faculty is actively engaged with business, industry and government. Faculty members are participating in a variety of applied research projects in such areas as energy, transportation, solid waste disposal, biomedical devices and instrumentation, water resources, computer engineering, artificial intelligence, manufacturing, robotics, telecommunications, micro-electronics, structural systems, biotechnology, education, etc.

Doctor of Philosophy

The College offers Doctor of Philosophy degrees in Civil, Electrical and Mechanical Engineering. Areas of study in Electrical Engineering include: Biomedical Engineering, Micro-Electronics, Communications, Computer Engineering, Systems and Controls, Electromagnetics, Power Systems, Digital Signal and Image Processing. Areas of study in Mechanical Engineering include: Thermo/Fluid, Biomedical, Mechanics, Materials, CAD/CAM, and Manufacturing. Civil Engineering areas include: Transportation, Environmental, Structural, Geotechnical, Construction, and Water Resources.

Master of Science Degree Programs

The College offers Master of Science degrees in Biomedical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Management, Environmental Engineering, Industrial and Systems Engineering, Mechanical Engineering, and Construction Management. The various curricula for the College are designed to give the student an education for entry into the profession of engineering.

Prospective graduate students should refer to the appropriate section of the catalog, or contact the graduate advisor in the program of interest.

Note: The programs, policies, requirements and regulations listed in the 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 may be made without advance notice.

Florida International University and the College believe in equal opportunity practices which conform to all laws against discrimination and are committed to non-discrimination with respect to race, color, creed, age, handicap, sex, marital status, 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.

Florida Engineering Education Delivery System (FEEDS) provides graduate engineering education courses to

place-bound professionals located throughout the State via video tape, ITFS, and web-based asynchronous learning modules.

Academic Support Services

The area of academic support services is responsible for the coordination of academic advising and student service activities for the college. This area is also responsible for keeping students informed on educational opportunities such as scholarships, tuition waivers, internships, co-op studies and campus resources. It also serves as a liaison between the academic departments and the student support services university wide and facilitates the registration process in order to make sure that the students adhere to the College guidelines.

A student who has been accepted to a degree program in the College must consult an advisor prior to the first class enrollment. An advisor may be assigned by contacting the Department in which an academic major is desired. Continued contact (at least once per semester) with the advisor is urged to review progress and select courses for each succeeding semester. Such contact is required until an approved program of study is completed.

Prerequisites

Courses taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of "DR" or "DF".

Scientific Laboratory Fees: are now being assessed for certain courses where laboratory classes are part of the curriculum. Specific information on scientific laboratory fees may be obtained from the academic departments or University Financial Services.

Academic Appeal Procedures

Academic Appeals not covered under the Academic Misconduct Policy shall be processed in the following manner:

Step 1. The student and faculty member will meet informally in an attempt to resolve the problem within ten days of the alleged occurrence.

Step 2. If the informal meeting does not result in an acceptable remedy, the student can appeal in writing to the Department/Divisional Chairperson within *ten days* of the informal meeting. The written appeal should

include the nature and conditions of the problem and a summary of the informal meeting with the faculty member involved.

Within ten days of the receipt of the written appeal, the Chairperson, student, and faculty member will meet in an attempt to resolve the problem.

Step 3. If the results from the meeting in Step 2 is not acceptable, the student can appeal in writing to the Dean of the College within ten days. The written appeal should include the nature and conditions of the problem and a summary of the meetings in Step 1 and in Step 2.

Within ten days of the receipt of the written appeal, the Dean will meet with the Chairperson, the student, and the faculty member in an attempt to resolve the problem.

The Dean will provide a written decision within ten days of the meeting in Step 3.

The Dean's decision is final.

College of Engineering Dismissal Policy

A student who has been dismissed from the University for the first time may see their advisor to begin the appeal procedure. The advisor will determine if the student is eligible to appeal the dismissal or if there is a way to lift the dismissal. If the student is eligible, he or she must make an appointment to see the chairperson or associate chairperson. The student must bring a letter stating when he or she was dismissed the first time and what he or she is going to do to ensure that he or she is not dismissed a second time. If the chairperson determines that the student is worthy of reinstatement, he or she will prepare and sign a memo for the Dean's consideration stating the conditions for the student to be reinstated (the student will be readmitted on academic probation). If the student does not meet these conditions, he or she will be dismissed a second and final time from the program. The student must also sign an agreement stating that he or she understands that the department will not allow a second reinstatement if the student is dismissed again.

Any student who is dismissed a second time from FIU will not be readmitted under any circumstances. Only a first dismissal appeal is considered in the College of Engineering, a second dismissal appeal will not be accepted.

Department-Specific Information

Please refer to your selected department in this catalog for additional information.

Research and Development Centers

NSF-The Center for Advanced Technology and Education—CATE

Introduction

The NSF-funded Center for Advanced Technology and Education (CATE) provides a computing environment capable of engaging researchers as well as facilitating classroom and laboratory-based instruction in critical technology areas. CATE constitutes an infrastructure that is viable for cutting-edge research activities providing an environment that enhances the potential for: (a) parallel and distributed processing, (b) high performance 3-D graphics for simulation, rendering, and modeling, (c) real-time processing capability, (d) operating systems, graphics, and software development that meet current standards, and (e) high-speed data acquisition, playback, analysis.

Research Areas

- Image Processing and Computer Vision
- EEG-Based Research
- Human-Computer and Brain-Computer Interfaces
- Robotics for Motion Planning and Automated Guidance
- Real-time and Multidimensional Signal Processing
- Confocal Microscopy
- Flow Cytometry for Hematology Studies and Data Analysis

Main Equipment

- ❖ ESI-256 System, an Electrical Source Imaging as a Human-computer Interface for Brain Research
- ❖ Onyx Supercomputer for parallel processing
- ❖ Confocal Microscope for time-varying 3-D imagery
- ❖ Coulter EPICS Profile II Cytometer for measuring light scatter (fluorescence or laser) of microscopic particles
- ❖ Nomadic Mobile Robot (Nomad200) with integrated sensory modules
- ❖ 4 servers, 22 Indys, and 18 Pentium PCs

- ❖ Computer Cluster for distributed processing with 8 processing units

Human Resources

Director: Malek Adjouadi, Ph.D.

Manager: Patricio Vidal, M.Sc.

Support Staff: Erika Suarez, Daniela Viegas, Danmary Sanchez, and Sheldon Silveira.

Faculty: Armando Barreto, Ph.D.; James Story, Ph.D.; Gustavo Roig, Ph.D.; Wunnava Subbarao, Ph.D.; Ana Pasztor, Ph.D.; Maria Matinez, Ph.D.; and Mark Weiss, Ph.D.

Postdoctoral Research Associate: Gualberto Cremades, Ph.D.; Wei Sunny Yao, Ph.D.

Graduate Researchers: John Riley, Julio Blandon, Patricio Vidal, Erika Suarez, Danmary Sanchez, Daniela Viegas, Cristophe Godefroy, Kirenia Nunez, Natasa Mirkovic, Carlos Reyes, Celso Duran, Alison Valdivieso, Mark Rossman, Weiting Cai, Mercedes Cabrerizo, and Alejandro Simon.

Undergraduate Researchers: Christy Bedia, Erica Armanteros, Lisa Demetrius, Anaelis Sesin, Helton Lopez, Michel Martinez, Dalila Landistoy, Eddy Caballero, Yusmaykel Valdes, Grettel Frias, Daniel Mandarino, Walter Tisher, Luis Arencebia, and Suzie Diaz.

NSF Fellows: Sonia Duranza, 1996-1999; Annette Taberner, 1997-2000; Erika Suarez, 1998-2001; Danmary Sanchez, 1999-2002

Cardiovascular Engineering Center (CVEC)

James E. Moore, Jr., Ph.D. *Associate*

Professor and Director

Andreas O. Frank, Ph.D. *Research Faculty*

Juan Franquiz, Ph.D. *Assistant Professor*

Anthony J. McGoron, Ph.D.

Assistant Professor

Richard T. Schoephoerster, Ph.D.

Associate Professor

Ofer Amit, Research Coordinator

Michael P. Anzelmo, Lab Manager

James D. Byrne, Research Faculty

Kenneth Setzer, Assistant Editor

Roselind Verona, Senior Secretary

The Cardiovascular Engineering Center (CVEC) unifies the efforts of the academic, industrial and clinical sectors in advancing cardiovascular engineering science and technology. It is specifically planned with and designed to support the biomedical industry in South Florida and the \$3.1 trillion world market for cardiovascular devices and instrumentation. In

addition to its research efforts and collaboration with industry and clinical partners, *CVEC* serves as the research arm of the *Biomedical Engineering Institute (BMEI)*—an interdisciplinary unit within the College of Engineering that supports the Biomedical Engineering program and the subsequent research activity.

The Cardiovascular Engineering Center aims to accelerate the transfer of research to practical applications. It concentrates on design, development and enhanced implementation of diagnostic, interventional, therapeutic and replacement systems and devices associated with the cardiovascular and blood systems. Faculty from the College of Engineering, the College of Health Sciences, and the Department of Biological Sciences collaborate on research efforts in the Center. Scientists, physicians, and biomedical engineers from industry join FIU faculty in research projects.

The Cardiovascular Engineering Center has the distinct role of educating biomedical engineering professionals and preparing a workforce for the biomedical industry by contributing research opportunities for the students in the academic program. At *CVEC* students have the opportunity to participate in research assignments within a multidisciplinary environment with faculty, industry engineers, scientists, and clinicians.

The Cardiovascular Engineering Center supports applied research interests of industry and clinical sectors and operates in an industry environment. The students enrolled in the biomedical engineering program are exposed to this environment and are better equipped to succeed as professionals.

The *CVEC* conducts research in biofluid and biosolid mechanics; experimental, mathematical and computational modeling; biomaterials; artificial heart valves; vascular grafts; stents; cardiovascular devices and instrumentation; bioimaging, signal processing and diagnostic imaging.

Drinking Water Research Center

The Drinking Water Research Center conducts basic and applied studies in the area of water resources as it relates to drinking water quality and quantity. The Center also provides research opportunities for undergraduate and graduate students to conduct independent studies in cooperation with other

departments in the University. The Center's laboratory facilities are certified by the State of Florida to analyze chlorination by-products in water samples.

Examples of the current research projects conducted at the center include dynamic aspects of speciation of metals in the Miami River sediments in relation to particle size distribution and chemical heterogeneity; experimental and mathematical modeling of the fate and transport of contaminants in waters of both natural and engineered systems; characterization of processes that affect the transportation of oils, fuels, and herbicides in surface and ground waters; calibration and validation of watershed management models; pesticide sorption on various geosorbents; surfactant-amended remediation; development of new and improvement of established analytical methods for measurement and detection of contaminants in water and soil by capillary gas chromatography; and the development of pollution prevention assessments in support of industrial ecology. In addition to research activities, the center also conducts short courses for training of local, regional, and national environmental professionals.

Research and Support Staff

Berrin Tansel, Ph.D., P.E., Associate

Professor, Civil Environment

Engineering, and Director

Shonali Laha, Ph.D., P.E., Assistant

Professor

Mehrzad Mehran, Pharm.D., Senior

Research Scientist

Nahid Golkar, M.S., Research

Scientist

FEEDS External Programs

Mercy Rueda, Director, Academic Support Services

Florida Engineering Education Delivery System is a statewide system whereby graduate and undergraduate level engineering courses are delivered to industrial sites and cooperating centers via distance learning. Students with work and family responsibilities are offered the flexibility to take courses around their busy schedules. Courses are delivered through one or more of the following four methods: videotape (asynchronous, traditional FEEDS program); ITFS (synchronous, interactive TV that is one-way video and two-way audio); video-conferencing (synchronous, interactive TV that is two-way video and two-way

audio); and web-based asynchronous networks.

Currently, students can select the necessary courses from FIU via distance learning to obtain a Master's degree in Biomedical Engineering, Electrical Engineering, Computer Engineering, Environmental Engineering, Construction Management and Engineering Management.

A student taking a course through FEEDS must meet the same requirements as the student on campus and will earn the same credit as if he/she were to attend classes on campus. A student need not be enrolled in a graduate or undergraduate degree program in order to take a course. However, a student who intends to seek admission to a program should be aware that no more than six (6) graduate or fifteen (15) undergraduate credits are allowed to be transferred into a program.

Future Aerospace Science and Technology Center for Space Cryoelectronics (FAST)

Grover Larkins, Associate Professor,

Electrical and Computer

Engineering Department, and

Director

FAST-SC is one of six centers created by the Air Force as part of its minority university enhancement program, providing research experience opportunities for undergraduate and graduate students of electrical engineering and space cryoelectronics.

The FAST Center evaluates novel applications of space-based cryoelectronics, initially studying new systems for reduction in losses of feed and phase shift networks in phased array transmitter systems. This involves development of low-loss active integrated low-noise phased array or post-processed phased array down-converter receiving systems, high gain-loss, low noise micro (and later millimeter) wave circuits and systems for space based applications. Of particular interest is the ability to design and fabricate integrated systems which could be used as "steerable" phased array antennas with, some frequency-agility as well.

Current research is focused on issues relating to: integration and hetero-epitaxy of the buffer and dielectric layer with the GaAs semiconductor and 123 high T_c superconductor layers; obtaining good ohmic GaAs contacts at low temperatures, tailoring the surface morphology of the high T_c

superconductor to achieve a designed Q value for microwave passive elements, package design and testing with respect to microwave and thermal cycling considerations, and the identification and minimization of noise sources.

Lehman Center for Transportation Research (LCTR)

L. David Shen, *Professor, Civil and Environmental Engineering and Director*

Fang Zhao, *Associate Professor, Civil and Environmental Engineering and Associate Director*

Sylvan C. Jolibois, Jr., *Associate Professor, Civil and Environmental Engineering, and Associate Director*
Albert Gan, *Assistant Professor, Civil and Environmental Engineering and Assistant Director*

The Lehman Center for Transportation Research (LCTR) at Florida International University was established in 1993 in honor of Congressman Bill Lehman and his tireless efforts to make South Florida a better place for all of us. The center's vision is to become a strong 'state-of-the-art' transportation research and training facility. LCTR is committed to serve and benefit our society by conducting research to improve mobility, hence the quality of life issues, develop partnerships in the transportation industry, and educate a multi-disciplinary workforce to plan, manage and implement transportation systems.

Faculty, staff and students at LCTR are involved in research related to the design and operation of transportation systems, public policy, air pollution, and the application of geographic information systems and other advanced technologies such as artificial neural networks and scientific visualization in transportation. Future plans include networking with the public and private industry to collaborate on transportation related research. In addition, applied research will be conducted on, but not limited to intelligent vehicle and highway systems.

Manufacturing Research Center (MRC)

Chin-Sheng Chen, *Professor, Industrial Engineering, and Director*
Kinzy Jones, *Professor, Mechanical Engineering and Co-Director*
Mario Sanchez, *Senior Engineer and*

Laboratory Manager

The objective of the Manufacturing Research Center (MRC) is to prepare manufacturing engineers for an era where enterprises will be mostly information-based and international in nature. Its resources and equipment available to any company in need of knowledge and/or expertise in its speciality areas, primarily rapid product design/development and manufacturing. It is divided into major labs and built to provide a seamless integration of computerized engineering tools for design (CAD), manufacturing (CAM), inspection (CM), and rapid prototyping (RP) for mechanical and electronic product design and fabrication.

Its two main laboratories include the *Rapid Product Realization Laboratory*, consisting of a design front end, an RP center for mechanical/electrical components, and computer driven manufacturing and inspection systems. The design center allows design intent to be modeled via Pro/Engineer and analyzed with finite element packages. Its RP facility includes three different techniques: stereolithography, fused deposition modeling and laminated object manufacturing. Mechanical parts are fabricated with a Vertical Machining Center, a CNC turning center, an EDM machine and a traveling wire EDM. Production capabilities are enhanced by an injection molding machine. A coordinate measuring machine provides dimensional analysis, verification and reverse engineering capabilities. The *Process Characterization Laboratory* includes process development furnaces, electron microscopes, X-ray diffractometers, thermal analysis, mechanical testing, and sample preparation and inspection capabilities.

The MRC regularly schedules training courses in Pro/Engineer and other industry-specific software at substantial discounts. Course instructors typically come from industry, bringing real-life hands-on experiences to the class. Companies served by the MRC range from entrepreneurial to well-established, and include aerospace, automotive, marine, medical and consumer product manufacturers. For more information, call the MRC at (305) 348-6557, directly contact Dr. Kinzy Jones (jones@eng.fiu.edu), Dr. Chin-Sheng Chen (chen@eng.fiu.edu), Mario Sanchez (mario@eng.fiu.edu), or refer to our website at www.eng.fiu.edu/MRC.

Telecommunications and Information Technology Institute

A Partnership in Workforce Development

Niki Pissinou, *Professor, Telecommunications & Information Technology Institute, Director*

Florida International University (FIU) recognizes the need to nurture highly trained personnel for the nation's industry and business, develop research in support of the rapidly expanding high-tech industry and become proactive in technology transfer, thus ensuring continued economic growth and prosperity. In order to fully meet today's technological demands, FIU has established the Telecommunications and Information Technology Institute (ITI²). ITI² promotes advanced multi-disciplinary education and research focused on telecommunications and information technologies. ITI²'s mission is to:

- 1) Deliver high quality telecommunications and information technology education and training.
- 2) Conduct and promote research to enhance Florida's role as a leader in telecommunications and information technology.
- 3) Offer training that is needed to foster business development and workforce preparedness.
- 4) Promote technology transfer to enhance the enabling technologies of the telecommunication and information technology industries.

In fulfilling its mission, ITI² promotes interdisciplinary collaboration and serves as the catalyst to promote intellectual cross-fertilization among disciplines. This effort results in the synergistic enhancement of teaching and research, so critical in the telecommunications and information technology fields, where disciplinary barriers are falling and lines are blurred. An objective of the Institute is to infuse telecommunications and information technology content into the curriculum at all appropriate levels. To fill the urgent demand of industry, the institute is developing interdisciplinary telecommunication programs that provide certificate programs, Bachelors, Masters and Ph.D. degrees.

ITI² constitutes an infrastructure that is viable for cutting edge research activities. Researchers at the institute conduct funded research and development targeted at solving complex problems conducive to the early identification of high impact

opportunities. Of particular importance to the institute's research efforts is the emerging global wireless, optical and personal communications infrastructure and the ability to represent, store and access information to perform a variety of information related tasks. To provide an effective forum for original research results and to foster communication among researchers and practitioners, the institute holds conferences.

The institute's infrastructure also defines a structure in which FIU and industry leaders can collaborate on education, training, and re-engineering the telecommunications workforce of the future. The alliance provides effective ways to educate the workforce of the 21st century. In accordance, the institute provides technical assistance and applied research services to transfer acquired knowledge and technologies to the commercial sector. The IT² team can work with industrial organizations to tap into some technological innovations that drive the industry to its strategic advantage.

For more information, contact Dr. Niki Pissinou, the director of the Telecommunications and Information Technology Institute, at (305) 348-3716 or visit our website at www.it2.eng.fiu.edu.

Biomedical Engineering

Richard Schoephoerster, *Associate Professor and Director*
 Armando Barreto, *Assistant Professor*
 Eric Crumpler, *Assistant Professor*
 Juan Franquiz, *Assistant Professor*
 Malcolm Heimer, *Associate Professor*
 Anthony McGoron, *Assistant Professor*
 James E. Moore, Jr., *Associate Professor*
 Diana Rincon, *Assistant Professor*
 Ilker Yaylali, *Courtesy Assistant Professor*

Master of Science in Biomedical Engineering

The Biomedical Engineering Institute at Florida International University, with the Miami Cardiac & Vascular Institute, an affiliate of Baptist Health Systems of South Florida, offer Research and Professional tracks for the Master's Degree. In addition, the Institute offers accelerated combined BS/MS and certificate programs. These programs provide an interdisciplinary education intended to prepare the student for professional practice in Biomedical Engineering.

All work counted for the Master's degree must be completed during the six years immediately following the date of admission to the graduate program.

Admission Requirements

The following is in addition to the University's graduate admission requirements:

1. A student seeking admission into the program must have a bachelor's degree in engineering, physical sciences, computer science, or mathematics from an accredited institution, or in the case of foreign students, from an institution recognized in its own country as preparing students for further study at the graduate level.
2. An applicant must have achieved a "B" average in upper level undergraduate work and a combined score of 1650 on the Graduate Record Examination with the following minimum scores on the individual components: verbal ≥ 350 , quantitative ≥ 650 , analytic ≥ 550 .
3. Applicants who have not satisfied the above will be evaluated for probationary or 10% waiver admission.
4. In addition to the above criteria, foreign students whose native language is not English, must take the Test of English as a Foreign Language

(TOEFL) and obtain a score of 550 or better.

5. The GPA, GRE, and TOEFL scores specified above are to be considered minimum requirements for admissions. Applicants from science areas other than engineering will be expected to complete undergraduate courses selected to prepare them for graduate courses in their area of interest. Full admission into the graduate program requires the completion of these background courses with no grades below "C" and a grade point average of 3.0 or better.

Graduation Requirements

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Institute.
2. Certification provided by the Institute Director and college Dean that all degree requirements have been met.
3. Met the undergraduate deficiencies, if any existed in the student's program, as additional courses toward the degree.
4. Complete the required semester hours of graduate level credit (not more than six graduate semester hours with a grade of "B" or higher can be transferred from other accredited institutions).
5. Successful defense of an acceptable graduate thesis if required of the program.
6. Students must maintain an overall GPA of 3.0. No grade below a "C" will be accepted in a graduate program. In the event that a student is placed on probationary status, he or she must obtain a directed program from his or her advisor and approved by the Director prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time limit, otherwise he or she will be academically dismissed.
7. Complied with all University policies and regulations.

6. Students must maintain an overall GPA of 3.0. No grade below a "C" will be accepted in a graduate program. In the event that a student is placed on probationary status, he or she must obtain a directed program from his or her advisor and approved by the Director prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time limit, otherwise he or she will be academically dismissed.

7. Complied with all University policies and regulations.

Combined BS/MS Program

This five year, 150 credit hour program seamlessly combines a baccalaureate degree in chemical, electrical, or mechanical engineering with the Master's in biomedical engineering. The program integrates biological sciences and biomedical engineering courses within the undergraduate degree to prepare the student for the graduate program. See the Undergraduate Catalog for the full program of study.

Professional Track

This track is tailored for the engineer currently practicing in the biomedical industry. A student shall complete 27 credit hours of course work and a 3 credit hour capstone project. The courses are organized into three core areas: Life Sciences, Engineering Management, and Biomedical Engineering. The student will choose three courses from the Engineering Management core based on personal training requirements. The biomedical engineering core includes a two course sequence in one of the three primary technical areas for industry: manufacturing, instrumentation, or materials. While the degree is structured as a non-thesis program, students will be required to conduct an industrial project (3 credit hours). The project will include contemporary topics and trends in biomedical engineering technology development and will require a formal report and presentation upon completion.

Early in the program (before the end of the second term) the student and advisor will complete a study plan that specifies the courses that will comprise the program. A maximum of three credits of independent study beyond the MS project may be included in a study plan.

Professional track students are required to take an oral final examination dealing with the objectives of their study plan. The student will briefly summarize the project report (20 minutes) as a part of the exam. The examining committee will include a minimum of three faculty members, at least of which two have appointments in the Institute.

Course Requirements

Life Science Core	
BME 5xxx	Engineering Analysis of Biological Systems 3
Life Science Elective	3
Engineering Management Core	
Select three of the following courses with advisor approval:	
STA 5676	Reliability Engineering 3
EIN 5226	Total Quality Management for Engineers 3
EIN 5322	Engineering Management 3
ACG 6026	Accounting for Managers 3
MAN 6245	Organizational Behavior 3

MAR 6805	Marketing Management	3
Biomedical Engineering Core		
	Biomedical Engineering Electives	6
BME 6xxx	Professional Master's Project	3
An additional six credit hours of core courses must be taken depending on the area of interest.		
Design and Manufacturing		
EML 4584	Design of Biomedical Systems and Devices	3
	Manufacturing Elective	3
Instrumentation		
ELR 4202C	Medical Instrumentation	4
	Instrumentation Elective	2
Materials		
EMA 5584	Biomaterials Science	3
	Materials Elective	3

Research Track

The research track is a more traditional program geared to prepare the graduate for further graduate study or a career in biomedical research. A student shall complete a minimum of 24 semester credit hours of course work, a minimum of 6 semester credit hours of Master's Thesis, and one semester of the Biomedical Engineering Seminar. Early in the program (before the end of the second term) the student and advisor will complete a study plan that specifies the courses that will comprise the program. The students will follow a program of study with either an electrical engineering or mechanical engineering emphasis. For students following the mechanical engineering core, one course is required and three other courses are chosen from classes offered through the mechanical engineering program in the areas listed. For students choosing the electrical engineering core, one course is required and three other courses are chosen from classes offered through the electrical engineering program in the areas listed. All students are required to complete the biomedical core and a thesis research project under the supervision of an advisor and committee.

When the thesis research is completed, the student should schedule a defense with an examining committee appointed through the Graduate School consisting of at least three faculty members (at least two of which have appointments in the Institute). The thesis, with an approval cover letter from the advisor, should be given to the examining committee for review not less than ten days before the scheduled

defense. The candidate should prepare to summarize the thesis in the manner of a technical paper using appropriate visual aids in 40 minutes or less. Following the presentation, the candidate will answer questions related to the work from the audience and/or the committee. At the conclusion of the defense, the committee will agree upon the outcome pass or fail and report the results to the graduate school. Following the exam the student will implement the committee's suggestions for improving the draft document. Each committee member must sign the approval form bound in the final document. Hard cover bound copies of the approved thesis must be provided to the advisor, Institute, and the library.

Course Requirements

All students in the Research Track must take four courses in either the mechanical engineering or electrical engineering core and all courses listed in the biomedical engineering core.

Mechanical Engineering Core

EMA 5584	Biomaterials Science	3
Select three courses (minimum of 9 credit hours) from one of the following three areas with advisor approval:		
Thermo/Fluids		
Mechanics/Materials		
Design and Manufacturing		

Electrical Engineering Core

EEL 6075	Biosignal Processing I	3
Select three courses (minimum of 9 credit hours) from one of the following four areas with advisor approval:		
Computer Engineering		
Communications and Electromagnetics		
Digital Signal Processing		
Solid State Devices and Electronic Materials		

Biomedical Engineering Core

BME 5xxx	Engineering Analysis of Biological Systems	3
	Life Science Elective	3
	Biomedical Engineering Electives	6
BME 6970	Master's Thesis	6
BME 6936	Biomedical Engineering Seminar	1

Certificate Programs

The biomedical engineering certificate programs offer a more compact, focused program of study for the practicing engineer in the biomedical industry. All courses in either certificate program are required for the Master's degree program and would transfer should the student choose to pursue the Master's degree.

To be admitted into either of the certificate programs, a student must have a Bachelor's degree in engineering, physical sciences, computer science, or mathematics from an accredited institution. Applicants from science areas other than engineering will be expected to complete undergraduate courses selected to prepare them for graduate courses in the certificate programs. Participants in the certificate programs must meet the general requirements for graduate study in biomedical engineering.

Medical Device Engineering Certificate

BME 5xxx	Engineering Analysis of Biological Systems	
	Life Science Elective	
EML 4585	Design of Biomedical Systems and Devices	
EMA 5584	Biomaterials Science	

Medical Instrumentation Certificate

BME 5xxx	Engineering Analysis of Biological Systems	
	Life Science Elective	
ELR 4202C	Medical Instrumentation	
EEL 6075	Biosignal Processing I	

Course Descriptions

Definition of Prefixes

BME-Biomedical Engineering; EEL-Electrical Engineering; EGM-Engineering Mechanics; EMA-Engineering Materials; EML-Mechanical Engineering

BME 5xxx Engineering Analysis of Biological Systems (3). Quantitative description of physiological systems, from cells to organs. Includes engineering analysis relating design to function. Prerequisite: BSC 1010 or Graduate standing.

BME 6936 Biomedical Engineering Seminar (1). Problems in Biomedical Engineering and results of ongoing research will be presented and discussed by invited experts. Prerequisite: Permission of the instructor.

BME 6970 Master's Thesis (1-6). Master's thesis on Biomedical Engineering is to be submitted and an oral presentation is to be made. Thesis should contain aspects of design to fulfill requirements for combined BS/MS program. Prerequisite: Advisor's permission.

EEL 5071 Bioelectrical Models (3). Engineering models for electrical behavior of nerve and muscle cells, electrode-tissue junctions, volume conductions in tissue and the nervous system as an electrical network. Prerequisite: ELR 4202 or Permission of the instructor. (F)

EEL 5085 Bioradiation Engineering (3). Spectrum of radiation sources, types of fields, properties of living tissue, mechanisms of field propagation in tissue. Applications in imaging and therapy, hazards and safety. Prerequisite: EEL 4410 or Permission of the instructor. (S)

EEL 6075 Biosignal Processing I (3). Characterizing biosignals by application of time and frequency domain analytic methods. Comparison of analog and digital processing. Engineering design for VLSI implementations in implantable devices. Prerequisites: ELR 4202 and EEL 6505 or Permission of the instructor. (F)

EEL 6076 Biosignal Processing II (3). Engineering design of advanced systems for processing biosignals. Methods for signal compression. Adaptive systems for automatic recognition. Application of artificial intelligence for signal classification. Prerequisite: EEL 6075 or Permission of the instructor. (S)

EGM 5585 Biotransport Processes (3). Transport of fluid, heat, and mass in the human body. Application to dialyzers and heart-lung devices. Prerequisites: EML 3126L and EML 4140.

EGM 6586 Fluid Mechanics Applications in Physiological Systems (3). Fluid mechanics principles including finite element and finite difference methods as it is applied to the analysis of various physiological systems will be covered. Process flow, diffusion and transport will be discussed in cardiovascular and pulmonary systems. Application of these primarily in the design of heart-lung machines, dialysis units, and heart valves will be discussed. Prerequisite: EGM 4580 or Permission of the instructor.

EGM 6587 Applied Biomedical and Diagnostic Measurements (3). Fundamentals of biomedical measurements and the design of biomeasurement systems and devices. This includes transducers and electrodes, EMG, EEG, ECG and medical imaging techniques, and electrical safety. Prerequisite: EGM 4580 or Permission of the instructor.

EGM 6588 Solid Mechanics Applications in Physiological Systems (3). Solid mechanics and numerical methods as applied to analysis of the musculoskeletal system and trauma. Design application in orthotics and prosthesis and heart valves. Prerequisite: EGM 4580 or Permission of the instructor.

EGM 6589 Advanced Biofluid Mechanics (3). Applications of fluid mechanics principles to human circulatory systems. Unsteady blood flow and wave propagation in elastic tubes. Influence of fluid dynamics on thrombosis and atherosclerosis. Prerequisite: EGM 6586.

EGM 6593 Advanced Cardiac Mechanics (3). Applications of principles of solid mechanics to the human cardiovascular system. 3-D reconstruction of the left ventricle, contractile properties and stress distribution in the myocardium. Prerequisite: EGM 6588.

EMA 5584 Biomaterials Science (3). Materials used in prostheses for skin and soft tissue, vascular implant devices, bone repair, and artificial joints. Structure-property relationships for biological tissue. Prerequisites: EGN 3365, and EMA 3702.

Civil and Environmental Engineering

L. David Shen, P.E., T.E., *Professor and Chairperson*

Irishad Ahmad, P.E., *Associate Professor*

Hector R. Fuentes, P.E., D.E.E. *Professor*

Albert Gan, *Assistant Professor*

Nestor Gomez, *Assistant Professor*

Sylvan C. Jolibois, Jr., *Associate Professor*

Shonali Laha, P.E. *Assistant Professor*

Chunhua Liu, *Research Associate*

Beth Pascual, E.I. *Instructor/Undergraduate Advisor*

Luis A. Prieto-Portar, P.E. *Professor*

Wolfgang F. Rogge, *Associate Professor*

Walter Z. Tang, P.E. *Associate Professor*

Berrin Tansel, P.E. *Associate Professor*

LeRoy E. Thompson, P.E. *Professor Emeritus*

Oktaý Ural, P.E. *Professor*

Ton-Lo Wang, P.E. *Professor*

Fang Zhao, P.E. *Associate Professor*

Lehman Center for Transportation Research

L. David Shen, *Director*

The Department of Civil and Environmental Engineering offers advanced study for the degree of Master of Science and Doctor of Philosophy. The areas of specialty are Structures, Mechanics, Geotechnical, Construction, Transportation, Water Resources, and Environmental Engineering. Degrees offered include: Master of Science in Civil Engineering, Master of Science in Environmental Engineering, Master of Science in Environmental and Urban Systems, and Doctor of Philosophy in Civil Engineering.

Master of Science in Civil Engineering

Irishad Ahmad, *Coordinator, Civil Engineering Graduate*

The Master of Science program in Civil Engineering emphasizes course work as well as research. The student is generally encouraged to specialize in a defined area of civil engineering, but may also find it desirable to pursue a more general program of studies combining subject material from different areas of specialization and interdisciplinary related courses.

The graduate degree is offered to prepare qualified students for the professional practice of civil engineering. The degree is available in a thesis or non-thesis program. The thesis program entails a minimum of six credits for the successful completion of the research and thesis. The non-thesis program must be supported by the successful completion of a project and a report of substantial engineering content for a minimum of three credits. A student must satisfactorily complete a minimum of 30 semester credits of acceptable graduate course work, which includes a minimum of 12 credits of graduate courses in the specialty area.

Master of Science in Environmental Engineering

Wolfgang F. Rogge, *Coordinator, Environmental Engineering Graduate*

A Master of Science in Environmental Engineering is available to people interested in graduate work in Environmental Engineering. The program is designed to expose graduate students to a wide range of knowledge on environmental engineering and on problem solving while encouraging them to pursue individual research interests. Thus, the curriculum has a common core of courses but is flexible enough to permit an interdisciplinary approach, if so desired, and allows the student to pursue his or her career goals. A proposed program of studies will be developed by the advisory committee together with the student.

The applicant should hold a Bachelor's degree in engineering, the natural sciences, or a related field. Students who do not meet the stated criteria may be considered for admission if they complete the required prerequisites and satisfy any deficiencies. A student must satisfactorily complete a minimum of 30 semester credits of acceptable graduate courses, including either a master thesis or an engineering project.

Master of Science in Environmental and Urban Systems

Wolfgang F. Rogge, *Coordinator, Environmental & Urban Systems*

The Master of Environmental and Urban Systems (MEUS) is an interdisciplinary program designed for planning professionals and graduate students in urban issues. The purpose

of the MEUS degree is to provide a multi-disciplinary education to men and women interested in the practice of urban and environmental planning. Graduates of the program may eventually apply their skills in various government agencies or private enterprises within a variety of subject areas. Particular emphasis may be placed on issues related to tropical and subtropical areas. The degree requires completion of 30 graduate semester credits.

Admission Policies for all Master of Science Programs

A student seeking admission into Civil Engineering or Environmental Engineering graduate program must have a bachelor's degree in Civil Engineering, Environmental Engineering, or related engineering or equivalent from an accredited institution or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level. In the case of a student seeking admission into Environmental and Urban Systems graduate program, the bachelor's degree must be in environmental or urban systems, environmental studies, engineering, architecture, social sciences, natural sciences, or a related field. All graduate applicants, regardless of previous grade point average or degrees, are required to submit their GRE (general) scores. An applicant must present:

1. A "B" average in upper level undergraduate work, or
2. A combined score of 1000 or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE),
3. A bachelor's degree in engineering, science, or a related field from an accredited institution and
4. If applicable, a TOEFL score of 500 (paper-based) or at least 173 (computer-based).
5. Three letters of recommendation in the forms provided by the department.
6. A statement of objective in which, in addition to other information the intended concentration must be clearly stated.

Students who meet all criteria, except for requirements 1, 2, and 3 above, may be evaluated for admission under the BOR 10% Policy Waiver.

Grades earned at an institution with non-traditional grading systems will be given every consideration and

applicants will be treated equally with students from institutions with traditional grading systems.

Foreign students are admitted as governed by University Admission rules and Board of Regents Rule 6C-6.09:

1. Eligible students may be accepted at the appropriate level subject to space and fiscal limitations.

2. In addition to University admission requirements, foreign students must meet the following requirements as a minimum:

a. The applicant shall be academically eligible for further study in his or her own country and

b. The applicant whose native language is other than English shall demonstrate proficiency in the English language by presenting a score of 500 or higher on the Test of English as a Foreign Language (TOEFL).

Combined BS/MS Program

Students who have completed a minimum of 90 hours towards their BS degree and have earned at least a 3.3 GPA on both overall and upper division courses may, upon recommendation from three CEE faculty members, apply to the department to enroll in the combined BS/MS program. Students enrolled in the program may count up to 9 hours of CEE graduate courses as credits for both the BS CEE electives and the MS degree. The BS/MS (3 +2) Program has been designed to be a continuous program. Students in 3 + 2 programs will apply for graduation with the BS and MS at the same time. Students will receive a BS degree and a MS degree on the same date, after requirements for both are completed. The student's advisor will insure that appropriate forms are completed, and that students do not apply for BS degree graduation until both BS and MS requirements are finished. Upon the completion of BS degree requirements, students can elect to permanently leave the combined program at any time and earn only the BS degree. Once the BS is granted, students will have the same access requirements to regular graduate programs as any other student. However, the combined MS degree would not be available to those who elect to leave the combined program.

Admission into the combined program does not automatically qualify the students for admission into the MS degree program. To enroll in the MS degree program, the students must apply (in their senior year) to the graduate

school and meet all graduate admission requirements.

Undergraduate students enrolled in the program are encouraged to seek employment with a department faculty to work as student assistants on sponsored research projects. The students will be eligible for graduate assistantships upon admission into the graduate school.

For each of the graduate courses counted as credits for both BS and MS degrees, a minimum grade of B is required. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor.

Students interested in the program should consult with the undergraduate advisor on their eligibility for the program. The students should also set up an appointment with the graduate coordinator to learn about the graduate program and available courses before completing the application form and submitting it to the undergraduate advisor. Applicants will be notified by the department on the decision of their application.

Application Procedures for Master of Science Programs

A student planning to enroll in the graduate program must complete the following:

1. Submit a Graduate Application for Admission to the Admissions Office. Application forms will be mailed upon request.

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.

3. Submit scores on the Graduate Record Examination (GRE).

4. Send three letters of recommendation and statement of objectives directly to the graduate coordinator of the appropriate program.

5. Foreign students must submit TOEFL scores (500 minimum score).

It should be emphasized that the admission cannot be acted upon until all of the documents and credentials have been received.

Students applying under the BOR 10% waiver must contact the departmental main office for filing instructions and deadlines.

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 all undergraduate deficiencies, and requirements as specified by the students' advisory committee.

3. Complete 30 semester hours of acceptable graduate level courses.

4. Earn a minimum average of 3.0 in all approved courses in the student's program of study.

5. Complete an acceptable thesis or graduate project.

6. Pass an oral examination that includes an oral defense of the thesis or graduate project.

7. Master's degree students in Environmental Engineering must in addition register for one credit of the Graduate Environmental Seminar (ENV 6935) and are encouraged to participate in it each year.

Grades and Credits

No course in which a grade below a 'C' is earned may be counted toward the Master of Science in Civil Engineering or in Environmental Engineering.

Transfer Credit

The student may receive permission to transfer up to a maximum of six semester hours of graduate credit earned from another institution or up to 12 semester hours of graduate credit earned at FIU after admitted into one of the graduate programs in the Civil and Environmental Engineering Department. Such credits are transferrable provided that: (1) the course(s) were taken at the graduate level at an accredited college or university; (2) grade(s) of 'B' or higher were earned for the courses; (3) the course(s) are judged relevant by the student's advisory committee; (4) the credits were not used toward another degree; and (5) the credit(s) were completed within seven years immediately preceding the awarding of the degree.

Credit is not transferable until the student has earned 12 semester hours in the Civil Engineering or Environmental Engineering programs.

Time Limit

All work applicable to the Master's degree, including transfer credit, must be completed within seven years immediately preceding the awarding of the degree.

Doctor of Philosophy in Civil Engineering

Irtishad Ahmad, Coordinator

Admission Requirements

The requirements for admission to the doctoral program in civil engineering are:

Applicants having a Master's degree in Civil Engineering or Environmental Engineering from a U.S. institution must satisfy the following requirements for admission to the doctoral program:

- a. GPA of at least 3.3/4.0 in the master's program
- b. GRE verbal plus quantitative of at least 1000 points
- c. Three letters of recommendation in the forms provided by the department
- d. A statement of objectives in which, in addition to other information, the intended research area must be clearly stated. (see identification of Research Area)

Credentials of all other applicants including those with foreign degrees and those with B.S. degrees in other disciplines will be examined by the Graduate Committee on a case by case basis.

Non-English speaking natives should have a TOEFL score of at least 550 points.

In addition to the departmental requirements, all students must satisfy the University's Admission and Graduate Policies and Procedures.

Degree Requirements

Maximum Length of Study

The maximum length of study should be 7 years for students admitted with a B.S. degree and 6 years for students with an M.S. degree. For those students who have not completed their studies within these limits, the length of study may be extended on a yearly basis after petition by the student and approval by the student's supervisory committee.

Identification of Research Area

There are currently three main areas of research or specialization: (1) Structural and Geotechnical Engineering; (2) Environmental and Water Resources Engineering; and (3) Transportation Engineering. The student must contact the Department for a list of all faculty members, visit them, and be accepted by one professor to guide the dissertation research. If no such professor can be found, within 15 months of admission, the student will be dismissed from the Ph.D. program.

Course Requirement

The program will consist of at least 90 semester credit hours beyond the baccalaureate degree, 66 hours of which are course work and 24 hours dissertation, or at least 60 semester credit hours beyond the M.S. degree, 36 hours of which are course work and 24 hours dissertation. A central requirement is the completion and oral defense of a dissertation based upon original research. The selection of courses must be structured based on the rules that follow. A list of core and elective courses also follows:

1. Minimum credits in

Mathematics	6
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2. Minimum 6000 or higher level credits in Civil & Environmental Engineering 21
3. Minimum total credits in Civil & Environmental Engineering 42
4. Minimum core credits in each of the three major areas in Civil & Environmental Engineering (core courses follow) 18
5. Maximum credits outside Civil & Environmental Engineering and Mathematics (with advisor's approval) 18
6. Minimum dissertation credits 24
7. Minimum total credits beyond the B.S. degree 90
8. Total minimum credits beyond the M.S. degree 60

Additional engineering courses (3000 and 4000 level) may be required as deficiencies for students coming from non-engineering majors.

All courses and dissertation topics must be approved by the student's supervisory committee.

Supervisory Committee

The student's supervisory committee should be appointed as soon as possible within the 15-month period after the student has been admitted to the Ph.D. program. The committee should have a minimum five members, at least three from the Department of Civil & Environmental Engineering, and at least one from outside the department. All committee members should have a Ph.D. degree.

Residency Requirements

The Ph.D. student should spend at least one academic year in full residency, after successfully passing his/her Comprehensive Examination (see the following description).

Examinations

Students must demonstrate graduate knowledge acquisition in three

incremental stages to be awarded a Ph.D. degree in Civil Engineering:

Stage I - Qualifying Examinations: the student must successfully pass a Qualifying Examination based on the student's course work. This examination will take place at a time determined by the student's graduate advisor and supervisory committee.

The research committee must certify that the student is capable of completing all required course work for the degree by the end of the semester in which the examination is given. This exam cannot be taken later than the semester in which the student has completed 66 credits of course work.

The Department will be announcing each semester the dates of the Qualifying Exams and the students who are candidates to take it. The exam will have two parts. Part A applies to all students within each major area and contains 8 to 10 problems from the core courses. Student may select 6 problems to solve. The exam will be given in one designated room and will last 8 hours and will be open-book. Part B is specific to each student's area of specialization, will be prepared by the advisor and supervisory committee, and will contain problems within each student's main area of research. The examination will last one weekend (i.e., problems will be given to the student at 5:00 pm on a Friday and return by 9:00 am on the following Monday) and will also be open-book. All exams will be graded within a month from the date of the examination. Each student will be informed in writing about his/her overall performance. A student can only fail this exam once. If the student fails the exam, the student will have to take it again the following semester.

Stage II - Comprehensive Examination (Proposal Presentation): the student must successfully complete a Comprehensive Examination. The examination will be in a format of a graduate seminar. It will consist of presenting a dissertation proposal in front of the supervisory committee, other faculty members, students, and visitors. The proposal must be prepared based on the guidelines for dissertation preparation and have the approval of the advisor and the supervisory committee. In the proposal the student has to demonstrate that the work is original and of practical significance to the profession, and that he/she has adequately been prepared to undertake it as determined by the majority of the committee. Preliminary results of the work in progress should also be

presented (i.e., the proposal will ideally be presented one year before the expected graduation, but not later than the end of the fourth year). A student can fail the Comprehensive Exam only twice (i.e., a student can take this exam a total of 3 times).

Stage III – Final Oral Defense: the student must conduct the proposed research, write a dissertation, and successfully complete the oral defense of the work as determined by the majority of the supervisory committee. The defense will be in the format of a graduate seminar. Final defense should take place no later than the end of the seventh year after admission with BS degree or the sixth year after admission with an MS degree unless an extension has been granted (see previous description for length of study). A student can fail the Final Oral Defense only twice. Following a successful defense of the dissertation, as determined by a majority vote of the student's supervisory committee, the dissertation must be forwarded to the Dean of the College of Engineering and the Dean of Graduate Studies for their approvals. All dissertations should also conform to the University guidelines (see "Regulations for the Thesis and Dissertation Preparation"). One final approved bound copy of the dissertation should be delivered to the Chairperson of the Department of Civil and Environmental Engineering, one to the advisor, and one to each member of the supervisory committee. Additional copies must be given to the Division of Graduate Studies as specified by the University guidelines.

Course Descriptions

Definition of Prefixes

CES-Civil Engineering Structures;
CEG-Engineering General, Civil;
CGN-Civil Engineering, CWR-Civil
Water Resources; EES-Environmental
Engineering Science; EGM-
Engineering, Mechanics; EGN-
Engineering, General; ENV-
Engineering, Environmental; TTE-
Transportation and Traffic Engineering

CCE 5035 Construction Engineering Management (3). Course will cover construction organization, planning and implementation; impact and feasibility studies; contractual subjects; liability and performance; the responsibility of owner, contractor and engineer. Prerequisite: CCE 4001.

CCE 5505 Computer Integrated Construction Engineering (3). Course

covers the discussion of available software related to Construction Engineering topics; knowledge based expert systems and their relevance to construction engineering planning and management. Prerequisite: CCE 4001.

CEG 5065C Geotechnical Dynamics (4). Analytical, field, and laboratory techniques related to vibration problems of foundations, wave propagations, behavior of soils and rocks, earth dams, shallow and deep foundations. Earthquake engineering. Prerequisite: CEG 4011.

CEG 6017 Theoretical Geotechnical Mechanics (3). A continuum mechanics interpretation of geotechnical engineering; soil rheology; theories of yielding; failure and plastic stability. Analytical and numerical modeling of non-linear properties. Prerequisites: CEG 4012C and MAP 2302. Suggested corequisite: MAP 4401.

CEG 6105 Advanced Foundations Engineering (3). Computer applications involving the numerical analysis and design of complex soil-structure interactions: highway and airfield pavements, deep foundation groups and NATM tunnelling techniques. Prerequisite: CEG 4012.

CES 5106 Advanced Structural Analysis (3). Extension of the fundamental topics of structural analysis with emphasis on energy methods and methods best suited for non-prismatic members. Prerequisite: CES 4101.

CES 5325 Design of Highway Bridges (3). Structural analysis and design for highway bridge systems which includes design criteria, standards of practice and AASHTO specifications for designing super-structures and substructure elements of various types of bridges. Prerequisites: CES 4605, CES 4702, CEG 4011.

CES 5565 Computer Applications in Structures (3). Discussion and application of available computer programs, techniques and equipment for the analysis, design and drafting of structures. Graduate students have to do a project. Prerequisites: CES 4605 and CES 4702.

CES 5606 Advanced Structural Steel Design (3). Extension of the analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Prerequisites: CES 4101, CES 4605.

CES 5715 Prestressed Concrete Design (3). The behavior of steel and concrete under sustained load. Analysis and design of pre-tensioned and post-tensioned reinforced concrete members, and designing these members into the integral structure. Prerequisite: CES 4702.

CES 5800 Timber Design (3). 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: CES 4101.

CES 6209 Advanced Structural Dynamics in Civil Engineering (3). Response of structures subjected to arbitrary forms of deterministic dynamic loading; formulation of methods to evaluate stresses and deflections due to vibrations. Prerequisite: EGM 5421.

CES 6706 Advanced Reinforced Concrete Design (3). The analysis and design of reinforced concrete and masonry structural systems to formalize the student's knowledge of the behavior of structural components into a final integrated structure. Prerequisites: CES 4101, CES 4702, CEG 4011.

CGN 5315 Civil Engineering Systems (3). Application of systems analysis techniques to large scale civil engineering problems. Prerequisite: ESI 3314 or equivalent.

CGN 5320 GIS Applications in Civil and Environmental Engineering (3). Introduction to the basics of geographic information systems, their software and hardware, and their applications in Civil and Environmental Engineering, landscape architecture, and other related fields. Prerequisites: CGS 3420, SUR 3101C and consent of instructor.

CGN 5930 Special Topics in Civil Engineering (1-3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. Prerequisite: Permission of the instructor.

CGN 5935 Professional Engineering (Civil) Review (4). Prepares qualified candidates to take the P.E. written examination in the field of Civil Engineering. Reviews hydraulics, hydrology, water supply and wastewater, geotechnics, structures, concrete and steel design, etc.

CGN 6308 Intelligent Civil Engineering System (3). Application of arti-

cial intelligence and other techniques to build intelligent civil and environmental engineering systems. Develop planning, design, analysis, diagnosis, control, monitoring applications through projects. Prerequisite: Permission of the instructor.

CGN 6325 Advanced GIS for Civil and Environmental Engineering (3). Advanced GIS concepts and techniques for civil and environmental engineering applications including LRS, temporal GIS, 3D modeling, GIS data accuracy and standards, spatial statistical analysis, and others. Prerequisite: CGN 5930 or permission of the instructor.

CGN 6426 Advanced Computing in Civil Engineering (3). Advanced computer modeling and programming techniques for civil and environmental engineering applications including data modeling, engineering database design, object-oriented programming, and user interface design. Prerequisite: Permission of the instructor.

CGN 6905 Directed Independent Study (1-3). Individual conferences, assigned readings, and reports independent investigations selected by the student and professor with approval of advisor.

CGN 6910 Supervised Research (1-6). Graduate level research carried out under the supervision of a faculty member.

CGN 6916 Engineering Project (1-3). Independent research work culminating in a professional practice oriented report for the requirements of the non-thesis option of the M.S. degree. Prerequisites: Fifteen graduate credits and approved project plan.

CGN 6930 Advanced Special Topics in Civil Engineering (1-3). A course designed to give groups of students an opportunity to pursue special studies in an advanced topic of Civil Engineering not otherwise offered. Prerequisite: Permission of the instructor.

CGN 6939 Graduate Seminar (1-3). An examination of recent technical findings in selected areas of concern. Emphasis is placed on presentations (oral and written), research activities, readings, and active discussions among participants. Prerequisite: Permission of graduate's advisor.

CGN 6971 Thesis (1-6). The student following the thesis option of the Master's degree will pursue research through this course. The research work will culminate with an acceptable

thesis. Prerequisite: Permission of graduate's thesis advisor.

CGN 7980 Dissertation (3-12). Doctoral research leading to Ph.D. civil engineering dissertation. Prerequisite: Permission of graduate committee.

CWR 5235 Open Channel Hydraulics (3). Theoretical treatment and application of hydraulics. Flow in open channels with special reference to varied flow, critical state hydraulic jump, and wave formation. Prerequisites: CWR 3103.

CWR 5251 Environmental Hydraulics (3). Application of fluid mechanics in the study of physical mixing in surface water bodies, dispersion of materials, and design of hydraulic systems. Prerequisite: Permission of the instructor.

CWR 6117 Statistical Hydrology (3). Quantitative determination of surface water run-off from a statistical approach. Prerequisites: CWR 3201 and CWR 3103.

CWR 6125 Groundwater Hydrology (3). Physical properties, equations of flow/mass transport, saturated/unsaturated zone, wells, pumping tests, quality/contamination control, analytical solutions, introduction to numerical models/computer codes. Prerequisite: Permission of the instructor.

CWR 6126 Advanced Groundwater Hydrology (3). Finite difference/finite element/boundary integral methods, transport and fate of chemically and biologically reacting solutes, tracer tests, hydrological approaches to remedial action and monitoring. Prerequisites: CWR 6125, or Permission of the instructor.

CWR 6236 Engineering Sediment Transport (3). Physical processes of sediment transport and deposition, land erosion, river morphology applied to engineering design, design of stable channels, scour, transport of sediment-attached pollutants.

EES 5135 Water Quality Indicators (3). Ecological studies of micro and macro organisms which are indicators of water quality. Emphasis of bioassays and early warning systems. Prerequisite: Permission of the instructor.

EES 5137 Biological Monitoring of Freshwater Ecosystems (3). 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: EES 5135 or Permission of the instructor.

EES 5506 Occupational Health (3). Effects, assessments, and control of physical and chemical factors in man's environment, including chemical agents, electromagnetic radiation, temperature, humidity, pressures, illumination, noise, and vibration. Prerequisite: Admission to graduate program.

EES 5605 Noise Control Engineering (3). Fundamentals of sound and noise. Health hazards and other effects. Measurement and noise control in transportation, construction, and other environments. Prerequisite: Admission to graduate program.

EES 6506 Environmental and Human Factors (3). Effects, assessment and control of physical and chemical factors in the natural and man-made environments, including noise, electromagnetic radiation, air and water pollution, public and occupational health, vector control, communicable diseases. Prerequisite: Admission to graduate program.

EES 6508 Occupational Health and Toxicology (3). A continuation of EES 6506. Investigation of toxic substances in air, water, and food in the industrial environment. Prerequisite: EES 6506.

EGM 5111 Experimental Stress Analysis (3). Course covers the necessary theory and techniques of experimental stress analysis and the primary methods employed: brittle coating, strain gauges, photoelasticity and Moire. Prerequisites: EGM 3520, EGM 5653.

EGM 5351 Finite Element Methods in Mechanics (3). Matrix techniques and variational methods in solid mechanics; single element, assemblage and generalized theory; non-linear analysis; applications in structural and soil mechanics, torsion, heat conduction and hydro-elasticity, etc. Prerequisite: EGM 3520.

EGM 5421 Structural Dynamics (3). Fundamentals of free, forced, and transient vibration of singles and multi-degree of freedom structures, including damping of lumped and distributed parameters systems. Graduate students have to do a project. Prerequisite: MAP 3302.

EGM 6425 Structural Reliability (3). Fundamentals of probability theory and stochastic processes; probabilistic

modeling of structural loads and material properties; reliability analysis and design of structures; reliability-based design criteria. Prerequisite: STA 3033.

EGM 6533 Advanced Mechanics of Materials (3). Extension of the fundamental principles of engineering mechanics to include curved beams, warping, stability, etc. Prerequisites: CES 4101, MAP 3302.

EGM 6653 Theory of Elasticity (3). An advanced course covering the concepts of stress and strain tensors, indicia notation, transformation of stresses, compatibility equations, the stress function and the closed form solution of some important continuum mechanics problems. Prerequisites: EGM 3520, MAP 3302.

EGM 6675 Advanced Plasticity (3). Formulation of the plastic stress-strain relationships; Prandtl-Reuss equations; yield criteria; Plane Plastic Flow and the Plane Slip Line Field Theory; limit analysis and basics of creep. Prerequisite: EGM 3520.

EGM 6736 Theory of Elastic Stability (3). Course will cover the beam-column problem; elastic and inelastic buckling of bars and frames; review of experimental work and design formulas; buckling of rings, curved bars and arches; bending and buckling of thin plates and thin shells. Prerequisites: EGM 3520.

EGM 6796 Theory of Plates and Shells (3). A course covering the concepts of thin plates with small deflections; thin plates with large deflections; thick plates; the Membrane Theory of Shells; and the General Theory of Cylindrical Shells. Prerequisites: EGM 3520.

EGN 5455 Numerical Methods in Engineering (3). Study of procedures that permit rapid approximate solutions, within limits of desired accuracy, to complex structural analysis. Graduate students have to do a project. Prerequisite: CES 4101.

EGN 5990 Fundamentals of Engineering (FE) Review (4). Prepares upper level engineering students to take the Fundamentals of Engineering (FE) State Board examinations. Reviews chemistry, computers, statics, dynamics, electrical circuits, fluid mechanics, mechanic of materials, material science and thermodynamics.

ENV_ 5002C Fundamentals for Environmental Engineers (3). Laws and principles of the physical, chemical and biological phenomena that define and control the fate of chemical species in natural and engineered systems. Prerequisite: Permission of the instructor.

ENV 5007 Environmental Planning (3). Environmental laws and regulations, ecological principles, planning policies and processes, risk assessment, environmental impact due to growth, and environmental indicators.

ENV 5008 Appropriate Technology for Developing Countries (3). Appropriate environmental technologies and associated factors. Topics include water, air, soil and waste management. Low cost and energy alternatives are emphasized. Prerequisite: Permission of the instructor.

ENV 5027 Bioremediation Processes (3). Biotransformation of subsurface contaminants is gaining recognition as a viable treatment tool. This course provides students with quantitative methods required to design bioremediation systems. Project required. Prerequisite: Permission of the instructor.

ENV 5062 Environmental Health (3). Study of the control and prevention of environmental-related diseases, both communicable and non-communicable, injuries, and other interactions of humans with the environment. Prerequisite: Permission of the instructor.

ENV 5065 Vector and Pest Control (3). Effects and management of public health vectors and communicable diseases. Prerequisite: ENV 5500 or Permission of the instructor.

ENV 5104 Indoor Air Quality (3). Assessment of sources of indoor air pollutants and human exposure. Remediation of unhealthy conditions by source control.

ENV 5105 Air Quality Management (3). The air pollution problem, principal types, sources and dispersion of pollutants. Physical, economic, and legal aspects of control of atmospheric pollutants.

ENV 5116 Air Sampling Analysis (3). 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: ENV 5105 or ENV 4101.

ENV 5126 Particulate Air Pollution Control (3). Particulate pollution control devices, principles, design, costs. Cyclones, electrostatic precipitators, filters, bag houses, scrubbers, novel control devices

ENV 5127 Gaseous Air Pollution Control (3). Gaseous pollution control devices, principles, design, costs. Gaseous pollutants control using adsorption, absorption, incineration, and other novel control systems.

ENV 5334 Spill Response and Hazardous Materials Transport (3). Consequence analysis of accident scenarios covering the release and dispersion of toxic substances during transport into air, soil, or aquifer and fast response to spills and toxics recovery. Prerequisite: Permission of the instructor.

ENV 5335 Advanced Hazardous Waste Treatment Processes (3). Theory and principles of technologies for treatment and disposal of hazardous waste. Procedures for remedial investigations and feasibility studies. Prerequisite: Hazardous Waste Assessment and Remediation or permission of the instructor.

ENV 5347 Waste Incineration (3). Domestic and industrial waste incineration and pollutant stream control of aqueous and airborne pollutants. Design of incinerations.

ENV 5356 Solid Wastes (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.

ENV 5406 Water Treatment Systems and Design (3). Course emphasizes water quality, quantities, treatment and distribution systems particularly as relates to municipal water supply. Requires laboratory project. Prerequisite: Permission of the instructor.

ENV 5512 Water and Wastewater Analysis (3). Relevance of the main quality parameters and their measurements by wet chemistry and analytical equipment. Includes BOD, COD, TOC, CO, TSS, VSS, alkalinity, acidity, PH hardness, ammonia, TKN, NO₂, NO₃, PO₄, etc. Prerequisites:

ENV 5666, CHM 1046, and CHM 1046L. Corequisite: ENV 5512L.

ENV 5512L Water and Wastewater Analysis Laboratory (1). Experiments are conducted which measure gross organic pollution indicators, suspended solids, conductivity, alkalinity, acidity, pH, nitrate, nitrite, TKN, ammonia, total phosphates, chlorine residual and chlorine breakpoint. Prerequisites: ENV 5666, CHM 1046, and CHM 1046L. Corequisite: ENV 5512.

ENV 5517 Design of Wastewater Treatment Plants (3). Wastewater collection systems. Integration of unit operations into the planning and design of treatment plants, including sludge handling and disposal. Prerequisite: Permission of the instructor.

ENV 5519 Reactions in Environmental Engineering (3). Basis for applying microbial and physico-chemical principles to understand reactions occurring in natural and engineered systems including water/wastewater treatment processes. Includes laboratory project. Prerequisite: Permission of the instructor.

ENV 5559 Reactor Design (3). A theoretical and practical basis for reaction kinetics to understand multi-phase reactions, analysis and design of batch and continuous flow reactors. Projects on analysis of reactor design and operating data.

ENV 5659 Regional Planning Engineering (3). 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 Permission of the instructor.

ENV 5666 Water Quality Management (3). Predicting and evaluating the effect of human activities on streams, lakes, estuaries, and ground waters; and the relation of human activities to water quality and protection of water resources. Prerequisite: Permission of the instructor.

ENV 5905 Independent Study (1-3). Individual research studies available to academically qualified students on graduate status.

ENV 5930 Special Topics in Environmental Engineering (1-3). Specific aspects of environmental technology and urban systems not available through formal course study.

Open to academically qualified students only.

ENV 6045 Environmental Modeling (3). 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. Prerequisite: Computer programming or permission of the instructor.

ENV 6056 Engineering Assessment of Metal Contaminants & Colloidal Transport (3). Kinetics of metal sorption reactions, colloidal transport, assessment of metal contaminants in soil. Prerequisite: Permission of the instructor.

ENV 6070C Pollution Prevention (3). Pollution prevention guidelines. Characterization, assessments and audits of processes in the energy and industrial sectors. Minimization approaches. Feasibility, cost analysis and implementation. Prerequisite: Permission of the instructor.

ENV 6337 Hazardous Waste Site Assessment (3). Phase I and Phase II Investigations, Environmental Testing, Assessment, Monitoring Design. Prerequisite: ENV 5335 or permission of the instructor.

ENV 6435 Design of Drinking Water Treatment Plants (3). Drinking water treatment plant design, including unit operations from coagulation, sedimentation, filtration to disinfection, together with advanced treatment technologies.

ENV 6510 Advanced Unit Operations I (3). Theory and design of physical and chemical processes for treatment of contaminated media. Application of fluid mechanics, heat and mass transfer to design and operation of physical/chemical systems. Prerequisite: Permission of the instructor.

ENV 6511C Advanced Unit Operations II (3). Theory and design of biological processes for treatment of contaminated media. Application of biochemical reaction kinetics theory to design and operation of biological treatment systems. Prerequisite: Permission of the instructor.

ENV 6511L Advanced Unit Operations II Lab (1). Bench scale experiments for scaling-up and designing the following water and wastewater processes: sedimentation, coagulation, filtration, adsorption,

oxidation and gas transfer. Prerequisite: ENV 6510. Corequisite: ENV 6511.

ENV 6516 Advanced Treatment Systems (3). Integration of unit operations into advanced treatment systems for contaminated media. Applications may include either conventional or innovative/emerging technologies. Prerequisite: Permission of the instructor.

ENV 6558 Industrial Wastewater Treatment (3). Characteristics and composition of industrial wastewaters. Sampling techniques and analyses. Water conservation and re-use. Joint industrial-commercial collection and treatment of wastewaters. Prerequisite: ENV 6516.

ENV 6614 Environmental Risk Assessment (3). Characteristics of risk analysis, hazard identification, exposure assessment, consequence analysis, dose-response analysis. Prerequisite: Permission of the instructor.

ENV 6615 Environmental Impact Assessment (3). An examination of alternative techniques useful for analysis and environmental impacts of man's activities. Environmental impact assessment methodologies are emphasized.

ENV 6916 Engineering Project (1-3). Individual work culminating in a professional practice-oriented report suitable for the requirements of the M.S. degree-project option. Only three credits are applicable towards degree. Prerequisites: Completion of 20 graduate credits and approved proposal.

ENV 6934 Advanced Special Topics in Environmental Engineering (1-3). Specific aspects of Environmental Engineering requiring advanced engineering and research skills. A maximum of three credits are applicable towards degree. Prerequisite: Permission of the instructor.

ENV 6935 Graduate Environmental Seminar (1-3). The course consists of oral presentations made by students, guests, and faculty members on current topics and research activities in environmental systems.

ENV 6971 Thesis (1-6). Research for Master's thesis.

TTE 5007 Transportation Systems in Developing Nations (3). Transportation systems in the Developing Nations. Role of international organizations, technology transfer/choices,

orientation of transport networks, socio-economic and environmental impacts. Prerequisite: Graduate standing or Permission of the instructor.

TTE 5015 Applied Statistics in Traffic and Transportation (3). Civil and Environmental Engineering statistics methods as applied to traffic and transportation are covered. Topics include: significance tests, standard distributions, analysis of variance, and regression analysis. Prerequisite: Graduate standing.

TTE 5100 Transportation and Growth Management (3). Theory and principles of transportation and growth management, including the growth phenomena and regional impact planning. Design projects required. Prerequisite: TTE 4201.

TTE 5107 Highway Safety Analysis (3). Accident reconstruction, intersection analysis, highway safety standards, speed estimations from skidding, momentum/energy relationships, human factors. Prerequisites: STA 3033, TTE 4201.

TTE 5205 Advanced Highway Capacity Analysis (3). Parameters involved in calculating highway capacity and level of service on different highway and transportation facilities. Computer application will be also discussed. Prerequisite: TTE 4201.

TTE 5215 Urban Traffic Characteristics (3). Speed and volume studies, stream characteristics, traffic flow theory, accident characteristics. Prerequisite: TTE 4201.

TTE 5606 Transportation Systems Modeling and Analysis (3). Modeling and analysis techniques in transportation. Linear Programming, queueing theory, decision making techniques. Prerequisite: TTE 4201.

TTE 5607 Transportation Demand Analysis (3). Travel demand analysis and forecasting. Modeling techniques including trip generation and distribution, mode split, and trip assignment. Practical applications. Prerequisite: TTE 4201.

TTE 5805 Advanced Geometric Design of Highways (3). 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: SUR 3101C and TTE 4201.

TTE 5835 Pavement Design (3). 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: CEG 4011 and CES 4702.

TTE 5925C Urban Traffic Workshop (3). Selected laboratory problems related to urban traffic. Prerequisite: TTE 4201.

TTE 5930 Transportation Seminar (1-3). Oral presentations made by students, guests, and faculty members on current topics and research activities in traffic and transportation engineering. Prerequisite: TTE 4201.

TTE 6257 Traffic Control Systems Design (3). Theory and principles of traffic control systems design, including both freeway and urban streets. Design projects required. Prerequisite: TTE 4201.

TTE 6506 Mass Transit Planning (3). Theories and principles of mass transit planning, include highway transit, rail transit and new transit modes. Design projects required. Prerequisite: TTE 5930.

TTE 6525 Bearing Capacity of Roads and Airfields (3). Advanced study of bearing capacity principles and theory; stress-strain behavior of pavements; constitutive modeling; and failure histories of pavement. Prerequisite: Permission of the instructor.

TTE 6526 Airport Planning and Design (3). Theory and principles of airport planning and design, include both general aviation and major commercial airports. Design projects required. Prerequisite: Permission of the instructor.

TTE 6528 Airport Terminal Design and Operations (3). Theory and practice of airport terminal design and operations, including passenger terminal complex, cargo terminal complex, and ground transportation. Design projects required. Prerequisite: Permission of the instructor.

TTE 6605 Planning and Design of Intermodal Facilities (3). Theory and practice of intermodal facility planning and design, including facility location, site design and access, and intermodal considerations. Design projects required. Prerequisite: TTE 5930 or permission of the instructor.

TTE 6650 Transportation and Land Development (3). Theory and principles of transportation and land development, including site planning, traffic analysis, and access and site circulation. Design projects required. Prerequisite: TTE 4201.

TTE 6755 Port Planning and Development (3). Theory and practice of port planning and development, including demand analysis, capacity evaluation, ground access, and port development strategy. Design projects required. Prerequisite: TTE 5930 or permission of the instructor.

TTE 6833 Superpave Asphalt Mixture Design and Analysis (3). Materials characterization and testing; elastic, visco-elastic and plastic behavior; fracture and fatigue, rutting and design of bituminous mixtures. Prerequisite: Permission of the instructor.

TTE 6834 Pavement Maintenance and Rehabilitation (3). Pavement performance assessment; criteria for pavement evaluation, measurement of pavement distress. Analysis and interpretation of pavement condition data. Formulation and evaluation of maintenance and rehabilitation alternative. Prerequisite: Permission of the instructor.

TTE 6837 Pavement Management Systems (3). Theory and principles of pavement management systems (PMS), including PMS at network and project level, PMS strategies, and PMS software packages used for decision making process. Prerequisites: TTE 5835 or permission of the instructor.

TTE 6XXX Traffic Simulation Models (3). Traffic simulation modeling and analysis. Application of microscopic and macroscopic traffic simulation models to evaluate and optimize traffic control systems. Prerequisites: TTE 6257 or equivalent.

Electrical and Computer Engineering

Malek Adjouadi, *Associate Professor*

Jean Andrian, *Associate Professor,*

Graduate Advisor

Tadeusz Babij, *Professor*

Armando Barreto, *Associate*

Professor

Frank Candocia, *Assistant Professor*

Thomas Gilbar, *Instructor and*

Undergraduate Advisor

Malcolm Heimer, *Associate Professor*

W. Kinzy Jones, *Professor*

Grover Larkins, *Associate Professor*

Osama Mohammed, *Professor*

Niki Pissinou, *Professor*

Gustavo Roig, *Associate Professor*

Pierre Schmidt, *Professor*

James Story, *Professor and Associate*

Dean

Subbarao Wunnava, *Professor and*

Associate Chairperson

Frank Urban, *Associate Professor*

Carolyn Van Vliet, *Courtesy*

Professor

Kang Yen, *Professor and Acting*

Chairperson

Master of Science in Electrical Engineering

The Department of Electrical Engineering offers both thesis and non-thesis options for the Master's Degree. A student seeking the Master's degree with or without thesis is required to pass a comprehensive oral or written examination.

All work counted for the Master's degree must be completed during the 5 years immediately following the date of admission.

The program provides a broad education, covering more than one field, followed by in-depth studies of areas of interest. Multi-disciplinary programs such as Computer Engineering, Systems Engineering, and Bio-medical Engineering are also available.

Admission Requirements

The following is in addition to the University's graduate admission requirements:

1. A student seeking admission into the program must have a bachelor's degree in engineering, physical sciences, computer science or mathematics from an accredited institution, or, in the case of foreign students, from an institution recognized in its own country as preparing students for further study at the graduate level.

2. An applicant must have achieved a "B" average in upper level

undergraduate work and a combined score of 1000 on the Graduate Record Examination (general test verbal and quantitative portions).

3. Applicants who have not satisfied the above will be evaluated by the departmental graduate admission committee for probationary or 10% waiver admission.

4. In addition to the above criteria, foreign students whose native language is not English, must take the Test of English as a Foreign Language (TOEFL) and obtain a score of 550 or better.

5. The GPA, GRE and TOEFL scores above are to be considered minimum requirements for admissions. Applicants from science areas other than electrical or computer engineering will be expected to complete sufficient background material at the undergraduate level prior to unconditional acceptance into the graduate program.

Graduation Requirements

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Department.

2. Certification by the Dean of the School that all requirements of the degree being sought have been completed.

3. A GPA of at least 3.0 has been earned for certain courses required by the program.

4. Met the undergraduate deficiencies, if any existed in the student's graduate program, as additional courses toward the degree.

5. Completed the required semester hours of graduate level credit (not more than 6 graduate semester hours with a grade of "B" or higher can be transferred from other accredited institutions).

6. Successful defense of an acceptable graduate thesis if required of the program.

7. Students must maintain an overall GPA of 3.0. No grade below "C" will be accepted in a graduate program. In the event that a student is placed on a probationary status, he or she must obtain a directed program from his or her advisor and approved by the Dean prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time limit, otherwise he or she will be academically dismissed.

8. Complied with all University policies and regulations.

Thesis Option

A student must complete 30 semester credit hours of technical course work plus 6 semester credit hours of EEL 6971 - Master's Thesis. The candidate's supervisory committee shall approve an appropriate thesis topic.

The course requirements include a minimum of 12 hours of 6000-level course credit and a minimum of 9 hours at the 5000-6000 level in Electrical Engineering. No more than 6 hours of Individual Work (EEL 6905) may be counted toward the degree.

Upon the successful completion of all course work, including thesis work, and after the determination by the student's advisor that he or she has completed the objectives of the thesis research, the student must pass a final oral examination which is primarily a defense of the thesis research. The candidate should limit the presentation to 40 minutes, unless told differently by the advisor. The essence of the thesis should be presented in the same manner as that of a technical paper at a conference.

The student must submit the thesis to the examining committee and department chairperson at least 10 days prior to the oral examination date. Upon passing the oral examination, and completion of any changes or additions, or both, as required by the committee, each member of the committee will sign a special front page available in the Department. Hardcover bound copies should be submitted to the student's advisor and to the Library. The student should consult with the advisor for approval of all course work prior to registration.

Distance Learning Option

Students who are working in industry and cannot attend classes on campus can apply to complete the Master's Program through the Distance Learning Program. This program differs from the on-campus program in that the courses can be taken through FEEDS and distance learning modes. In addition, the degree requirements differ from the on-campus program in two respects. First of all, the student can petition to be exempt from the thesis requirement, including the 6 credits it entails by substitution of industry research. Also, the candidate will be required to pass a comprehensive final examination. This exam may be administered at the work location and will be given by a committee selected by the department. The membership of this committee may include faculty and engineers from

industry. The exam is intended to test the candidate's general ability in the areas of study and it will be given near the end of the candidate's final semester. A student who fails the exam may not attempt it again until one semester has elapsed or upon the completion of additional course work prescribed by the examining committee. The exam may be retaken only once.

Math Electives:

Select 2 courses with advisor approval.

EEL 5171	Advanced System Theory	3
EEL 5524	Statistical Communication Theory	3
EEL 6020	Numerical Analysis of Electrical Devices	3
MAA 4211	Advanced Calculus	3
MAA 4402	Complex Variables	3
MAD 3401	Numerical Analysis	3
MAP 4401	Advanced Differential Equations	3
MAP 5117	Mathematics and Statistics Modeling	3
STA 5446	Probability Theory I	3
STA 5447	Probability Theory II	3
STA 5800	Stochastic Processes for Engineering	3

The above list may be changed or expanded by the committee.

Remaining course work will be selected by the student and his advisor based on the student's career objectives.

Any course taken without the proper prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of "DR" or "DF".

Students who are dismissed from the University due to low grades, may appeal to the Dean for reinstatement. A second dismissal results in no possibility of reinstatement.

Master of Science in Computer Engineering

The Department of Electrical and Computer Engineering offers both thesis and non-thesis options for the Master's Degree in Computer Engineering. A student pursuing the Master's degree with or without thesis is required to pass a comprehensive oral or written examination and must complete all the required work during the 5 years immediately following the date of admission to the program.

The program requires that students entering this program have a strong background in math through differential equations, physics with calculus, engineering science, electrical

engineering and computer hardware and software. The degree program will provide training in electrical engineering, specializing in computer hardware design as well as in software engineering.

Admission Requirements

Admission requirements to Computer Engineering are the same as listed under the Electrical Engineering Master's program.

Graduation Requirements

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Electrical and Computer Engineering Department.

2. Certification by the Dean of the College of Engineering that all requirements of the degree being sought have been completed.

3. An overall GPA of at least 3.0 has been achieved for all graduate course work.

4. The undergraduate deficiencies, if any existed, have been met, as additional courses toward the degree.

5. Completed the required number of credits in engineering and computer science. Not more than 6 graduate semester hours with a grade of "B" or higher can be transferred from other accredited institutions.

6. Completed at least 12 credits of 6000 level and 12 credits of 5000 or 6000 level in electrical and computer engineering.

7. Three out of the remaining 6 credits may be taken from Computer Science and other 3 at the discretion of the advisor.

8. All courses and thesis topics must be approved by the student's thesis advisor in consultation with the student's thesis committee.

9. Completed an acceptable graduate thesis if required of the selected program.

10. Students must maintain an overall GPA of at least 3.0. No grade below "C" will be accepted in any course taken to satisfy the graduate program requirements. In the event that a student is placed on a probationary status, he or she must obtain a directed program of studies from his or her advisor and approved by the Dean prior to continuing further into the degree. The student must satisfy the directed course of action within the prescribed time limit, otherwise he or she will be academically dismissed.

Thesis Option

A student must complete 30 semester credit hours of technical course work plus 6 semester credit hours of EEL 6971 - Master's Thesis. The candidate's supervisory committee shall approve an appropriate thesis topic.

The course requirements include a minimum of 12 hours of 6000-level course credit and a minimum of 12 hours at the 5000-6000 level in Computer Engineering. No more than 6 hours of Individual Work (EEL 6905) may be counted toward the degree.

Upon the successful completion of all course work, including thesis work, and after the determination by the student's advisor that he or she has completed the objectives of the thesis research, the student must pass a final oral examination which is primarily a defense of the thesis research. The candidate should limit the presentation to 40 minutes, unless told differently by the advisor. The essence of the thesis should be presented in the same manner as that of a technical paper at a conference.

The student must submit the thesis to the examining committee and department chairperson at least 10 days prior to the oral examination date. Upon passing the oral examination, and completion of any changes or additions, or both, as required by the committee, each member of the committee will sign a special front page available in the Department. Hardcover bound copies should be submitted to the student's advisor and to the Library. The student should consult with the advisor for approval of all course work prior to registration.

Distance Learning Option

Students who are working in industry and cannot attend classes on campus can apply to complete the Master's Program through the Distance Learning Program. This program differs from the on-campus program in that the courses can be taken through FEEDS and distance learning modes. In addition, the degree requirements differ from the on-campus program in two respects. First of all, the student can petition to be exempt from the thesis requirement, including the 6 credits it entails by substitution of industry research. Also, the candidate will be required to pass a comprehensive final examination. This exam may be administered at the work location and will be given by a committee selected by the department. The membership of this committee may include faculty and engineers from

industry. The exam is intended to test the candidate's general ability in the areas of study and it will be given near the end of the candidate's final semester. A student who fails the exam may not attempt it again until one semester has elapsed or upon the completion of additional course work prescribed by the examining committee. The exam may be retaken only once.

Computer Engineering Courses

EEL 5718	Computer Communication Network Engineering
EEL 5725	Digital Systems Engineering I
EEL 5741	Advanced Microprocessor Systems
EEL 6167	VLSI Design
EEL 6726	Digital Systems Engineering II
EEL 6575	Data Communications Engineering
EEL 6444	Optical Fiber Communications Systems
EEL 6505	Digital Signal Processing
EEL 6509	Digital Communications by Satellite
EEL 6253	Computer Analysis of Power Systems
EEL 6681	Fuzzy System Design
EEL 6758	Engineering Design of Microprocessor Based Operating Systems
EEL 6821	Computer Vision
EEL 5757	Real-Time DSP Implementations
EEL 6812	Advances in Neural Networks
EEL 6870	Intelligent Computer Design
EEL 6751	Wavelet Theory Applied to Signal Processing

Electives Computer Science: (3)

Courses may be selected by student and advisor from 4000, 5000, and 6000 level Computer Science course listings. The above lists may be changed or expanded by the supervisory committee.

Doctor of Philosophy in Electrical Engineering

Admission Requirements

The requirements for admission to the doctoral program in Electrical Engineering are:

1. Applicants having a Master's degree in Electrical Engineering from an accredited institution must satisfy

the following requirements for admission to the doctoral program:

- GPA of at least 3.3/4.0 in the master's program
 - GRE verbal plus quantitative of at least 1000 points
 - Three letters of recommendation in the forms provided by the department
 - TOEFL score of at least 550 points for non-English speaking natives.
2. Credentials of all other applicants will be examined by the Graduate Admission Committee on a case by case basis.

In addition to the departmental requirements, all students must satisfy the University's Graduate Policies and Procedures.

Identification of Research Area

Within 15 months upon acceptance into the Ph.D. program, the student has to identify an area of research of his or her interest by contacting and being accepted by a professor willing to guide the dissertation research. If no such professor can be found, the student will be dismissed from the Ph.D. program. Contact the Department for a list of the graduate faculty members and their research interests.

Course Requirements

At least 90 credit hours beyond the bachelor's degree, including a maximum of 30 credit hours of course work, with a minimum grade of "B" in each course, earned in a Master's degree in Electrical Engineering received at FIU or another accredited institution. The credit hours earned towards the Ph.D. program have the following requirements and restrictions:

- At least 12 credits of Ph.D. Course Breadth Requirements.
- At least 12 credits of course work at 6000 level of major field of interest.
- Registration for Advanced Research is allowed only after successfully having passed the written comprehensive examination.
- Registration for EEL 7980 (Research for Doctoral Dissertation) is allowed only after the student is admitted to candidacy. Twenty-four dissertation hours are required.
- At least 30 credit hours of 5000 or 6000 level electrical engineering courses are required. EEL 5935, 6905, 6916, 6932, 6971, 6977, and 7980 are not considered course work for the

purpose of this 30 credit hours requirement.

6. Fifty percent of the hours accumulated have to be at the 6000 and 7000 level (including EEL 7980).

Residency Requirements

The Ph.D. student must spend at least one academic year in full-time residency. Usually, this will be after being admitted to candidacy. To satisfy the residency requirement for a Ph.D. E.E. degree, the candidate must complete a minimum of 18 credit hours within a period of 12 months in residency at the University.

Graduate Supervisory and Research Committee

The student's Ph.D. Graduate Supervisory and Research Committee should be appointed as soon as possible and not later than 15 months after being admitted to the Ph.D. program. Consult the Graduate Guidelines in the Department for more details on how to select the committee members.

Ph.D. Course Breadth Requirements

All potential Ph.D. candidates are required to take two two-course sequences for a total of 12 credits outside of their major area and receive a grade of "B" or better in each course. The appropriate areas of study are determined by the dissertation advisor. The student must submit to the Graduate Coordinator the sequences selected when he or she signs up for the written part of the Ph.D. E.E. Comprehensive Examination.

Written Comprehensive Examination

To be eligible for the written comprehensive examination, the student must have satisfied the Ph.D. course breadth requirements in his or her area of specialization and in two other areas. The students can take the candidacy examination no earlier than the semester in which all the required coursework for the degree is completed. Failure to do this is causation for dismissal from the Ph.D. program.

The student must pass all three areas of the examination. Failing one area implies failure of the entire examination. The exam must be retaken the next time it is offered. Failing a second time is causation for dismissal from the Ph.D. program.

Consult the Graduate Guidelines available in the department for details

on examination procedures, dates, duration, application and grading criteria.

Oral Candidacy Examination

To take the oral part of the candidacy examination, a student must be in good academic standing at the University. The Research Committee must certify that the student is capable of completing all required course work for the degree by the end of the semester in which the candidacy examination is taken and must have passed the written comprehensive examination.

This exam is usually taken within one year after the satisfactory completion of the written comprehensive examination and consists on the presentation and defense of the student's written research proposal.

Admission to Candidacy

Candidacy status indicates that a doctoral student is ready to commence writing the dissertation. A student is admitted to candidacy upon successfully completing all required course work and passing the candidacy examination.

Oral Defense and Submission of Doctoral Dissertation

A dissertation is required of all candidates for the doctoral degree. A proposal must be submitted to the student's Research Committee for approval, following the general guidelines in the "Regulations for Thesis and Dissertation Preparation". A student must enroll for dissertation credits in the semester in which he or she expects to be admitted to candidacy, and must maintain continuous enrollment for not less than 3 credits of EEL 7980 every semester, including Summers, until the semester in which the doctoral degree is awarded. Upon completion of the dissertation, the degree candidate will submit to the Dean of Graduate Studies an application for dissertation defense signed by the student's Advisory Committee with sufficient time to allow for publishing a notice in the monthly calendar of dissertation and theses defenses to invite members of the university community to observe the defense.

Following the successful defense of the dissertation, as determined by a majority vote of the student's research committee, the dissertation must be forwarded to the Dean of the College of Engineering and the Dean of Graduate Studies for their approval.

All dissertations submitted in fulfillment of requirements for graduate degrees must conform to University guidelines (see "Regulations for Thesis and Dissertation Preparation"). One final, approved copy of the dissertation must be delivered to the Chairperson of the Department of Electrical & Computer Engineering. Library copies must conform to University guidelines, also published in "Regulations for Thesis and Dissertation Preparation".

Financial Aid

Consult the Department for information on research and teaching assistantships available for doctoral students.

Course Descriptions

Definition of Prefixes

EEL - Engineering; Electrical

EEL 5071 Bioelectrical Models (3). Engineering models for electrical behavior of nerve and muscle cells, electrode-tissue junctions, volume conductions in tissue and the nervous system as an electrical network. Prerequisite: ELR 4202 or Permission of the instructor. (F)

EEL 5085 Bioradiation Engineering (3). Spectrum of radiation sources, types of fields, properties of living tissue, mechanisms of field propagation in tissue. Applications in imaging and therapy, hazards and safety. Prerequisite: EEL 4410 or Permission of the instructor. (S)

EEL 5145 Advanced Filter Design (3). Graduate course in the design and advance analysis of passive and active high order circuits. Use of computer as a design tool. Prerequisite: EEL 4140 or Permission of the instructor. (S, alternating years).

EEL 5171 Advanced Systems Theory (3). State-space representations for continuous and discrete-time systems, controllability and observability, pole-zero allocation, Lyapunov stability theorem, state observers. Prerequisites: EEL 3657 and graduate level or advanced senior standing or Permission of the instructor. (S)

EEL 5270 Electrical Transients in Power Systems (3). Traveling waves on transmission and multi-conductor systems, successive reflections, distributed parameter systems, transients on integrated power systems. Prerequisite: EEL 4213 or Permission of the instructor.

EEL 5275 Power Systems Protection (3). Analysis of power systems under faulted conditions using linear transformation. The study of surge, transient and waves on power lines. Computer-aided analysis and design emphasizing the protection of equipment. Prerequisite: EEL 4215 or Permission of the instructor. (F)

EEL 5348 Digital Electronics (3). Analysis and design of logic gates using saturated and non-saturating elements, transmission gates, interfacing of logic families, bistable circuits, A/D and D/A converters. Prerequisite: EEL 4304.

EEL 5352 Bipolar Junction Transistors (3). Bipolar junction transistor physics. Semiconductor bulk properties at equilibrium and nonequilibrium. PN junction theory. Theory of the bipolar junction transistor. Prerequisite: EEL 3396 or Permission of the instructor. (S)

EEL 5353 Field Effect Transistors (3). Field effect device physics and technology. MOS capacitor. DC and AC characteristics of the MOS transistor. The MOS transistor in dynamic operation. Prerequisites: EEL 3396 or Permission of the instructor. (F)

EEL 5366 Industrial Electronics (3). A study of solid state devices for the control of power, their applications and limitations in power switching circuits and in the control of physical transducer. Prerequisites: EEL 4213, EEL 4304 or Permission of the instructor. (F, every third year)

EEL 5371 High Frequency Amplifiers (3). Analysis and design of high frequency amplifiers and oscillators: stability, scattering parameters, use of the Smith chart and other practical design tools, noise. Prerequisites: EEL 4304, EEL 4410 or Permission of the instructor. (F, every third year)

EEL 5437 Microwave Engineering (3). Microwave guides. Microwave tubes. Microwave solid state devices. Microwave integrated circuits, Microwave enclosures. Prerequisite: EEL 4410 or Permission of the instructor. (S, every third year)

EEL 5482 Fields and Waves Engineering (3). Concepts and theorems in fields and waves, analytic techniques for guided waves, radiation and scattering, numerical techniques for analysis of electrical devices using digital computers. Prerequisite: EEL

4410 or Permission of the instructor. (S)

EEL 5500 Digital Communication Systems I (3). This course will consider most important aspects of digital communication systems such as noise related subjects, random signals, linear systems, and baseband digital modulation and multiplexing. Prerequisites: EEL 3135, EEL 3514, EEL 3112 or Permission of the instructor. (SS)

EEL 5501 Digital Communication Systems II (3). This course will consider more important aspects of digital communication systems such as matched filters, digital base and modulation, multiplexing, carrier digital modulation and error correction coding. Prerequisite: EEL 5500 or Permission of the instructor. (F)

EEL 5524 Statistical Communication Theory (3). Noise, random processes, correlation, spectral analysis in the analysis and design of communication systems. Optimization techniques; minimum mean square error. Prerequisite: EEL 3514. (SS, alternating years)

EEL 5563 Introduction to Optical Fibers (3). Use of fiber optics as a communication medium. Principles of fiber optics; mode theory; transmitters, modulators, sensors, detectors and demodulators; fiber data links. Prerequisites: EEL 3514, EEL 4314 and EEL 4410 or Permission of the instructor. (F, alternating years)

EEL 5653 Digital Control Systems (3). Analysis and design of digital control systems. Z-transforms, analysis and control of discrete-time systems, digital control of analog systems. Several digital controller design methods. Computer simulation and microprocessor implementation. Prerequisite: EEL 3657. Corequisite: EEL 4611 or Permission of the instructor. (SS)

EEL 5718 Computer-Communication Network Engineering (3). System engineering synthesis, analysis, and evaluation of computer-communication networks. Network design, routing and flow control, telecommunication traffic engineering, transmission, switching, etc. Prerequisite: EEL 5501 or Permission of the instructor. (SS)

EEL 5719 Digital Filters (3). Analysis, design and implementation of digital filters. Hardware and software

approach to design. Prerequisites: EEL 4709 or Permission of the instructor. (F)

EEL 5725 Digital Systems Engineering I (3). This course involves systematic studies of Fault Tolerant Digital Systems, VHDL and VERILOG based dynamic digital system designs, and system implementations with CPLDS, FPGAs, ASICs. Prerequisites: EEL 4304, EEL 4746 or equivalent or Permission of the instructor. (F)

EEL 5741 Advanced Microprocessor Systems (3). Interfacing of various microprocessors together. Concepts of master-slave systems, virtual memory and I/O control techniques. Digital system evaluation and optimization. Prerequisite: EEL 4746 or Permission of the instructor. (SS, alternating years)

EEL 5757 Real-Time Digital Signal Processing Implementations (3). Techniques for the implementation of Digital Signal Processing (DSP) algorithms in dedicated processors, for assessing real-time performance of audio, control, and communication systems. Prerequisite: EEL 3135 or equivalent.

EEL 5810 Neural Networks-Algorithms and Applications (3). Various artificial neural networks and their training algorithms will be introduced. Their applications to electrical and computer engineering fields will be also covered. Prerequisite: MAC 3312. (SS)

EEL 5820 Digital Image Processing (3). Image Fundamentals, Image Transforms, Image Enhancement, Edge Detection, Image Segmentation, Texture Analysis, Image Restoration, and Image Compression. Prerequisite: EEL 3135 and knowledge of any programming language (FORTRAN, Pascal, C). (F)

EEL 5935 Advanced Special Topics (1-3). A course designed to give groups of students an opportunity to pursue special studies in an advanced topic of Electrical Engineering not otherwise offered. Prerequisite: Consent of instructor.

EEL 6020 Numerical Analysis of Electrical Devices (3). Numerical techniques for the analysis of static and diffusion eddy current type field problems and associated phenomena in electrical devices. Emphasis on implementation and applications to practical problems. Prerequisites: EEL 4213,

MAP 3302 or equivalent or Permission of the instructor. (SS)

EEL 6075 Biosignal Processing I (3). Characterizing biosignals by application of time and frequency domain analytic methods. Comparison of analog and digital processing. Engineering design for VLSI implementations in implantable devices. Prerequisites: ELR 4202 and EEL 6505 or Permission of the instructor. (F)

EEL 6076 Biosignal Processing II (3). Engineering design of advanced systems for processing biosignals. Methods for signal compression. Adaptive systems for automatic recognition. Application of artificial intelligence for signal classification. Prerequisite: EEL 6075 or Permission of the instructor. (S)

EEL 6141 Advanced Network Analysis (3). Modeling and analysis of networks by t-domain and s-domain techniques. Topics include topology, formulation of loop eqs and node pair eqs., state space networks, computer solutions. Prerequisite: EEL 3112 and FORTRAN or Permission of the instructor. (S, every third year)

EEL 6167 VLSI Design (3). Study of VLSI Design concepts in MOS/CMOS environment, CAD techniques, VLSI array processors and wavefront array processors, and implementation of array processors. Prerequisites: EEL 5741, EEL 4314. (SS, alternating years)

EEL 6216 Application of Intelligent Systems to Power System Operations (3). Power system security assessment using intelligence systems techniques such as pattern recognition, expert systems, and neural networks. Class projects include applying IS to load forecasting, alarm processing. Prerequisites: EEL 4214, EEL 6273. (SS, alternating years)

EEL 6219 Electric Power Quality (3). Modeling of networks under non-sinusoidal conditions, loads which may cause power quality problems, analysis of harmonics, flickers, impulses, standards, power quality improvement methods. Prerequisite: EEL 4213 or permission of the instructor.

EEL 6235 Motor Drives Control (3). Switched, resonant and bidirectional power supplies, DC motors: single, three phase and chopper drives. AC motors: voltage, current and frequency control. Closed loop control. Prerequisite:

sites: EEL 4213, EEL 3303, EEL 3657. (SS, alternating years)

EEL 6253 Computer Analysis of Power Systems (3). Power systems analysis and designs by computer solutions. Interactive solutions, power flow, optimum solutions. Dynamic solutions and stability. Prerequisite: EEL 4215 or Permission of the instructor. (F, every third year)

EEL 6254 Power Systems Reliability (3). Expansion planning, load forecasting, reliability and availability application to generation planning, bulk power supply systems, generation system operation and production costing analysis. Prerequisite: EEL 4215 or Permission of the instructor. (S)

EEL 6261 Power Systems Engineering (3). Steady-state analysis, fault studies, load flow, dynamic and transient performance, on-line control, practical applications. Prerequisite: EEL 4215 or Permission of the instructor. (SS, every third year)

EEL 6273 Power System Stability and Control (3). Direct methods for system stability, computer analysis of large scale models, Lyapunov stability, longer term stability, security analysis, MW-frequency control, isolated and multiple area control. Prerequisites: EEL 4215 and FORTRAN or Permission of the instructor. (S)

EEL 6311 Advanced Electronic Systems I (3). Principles of analog and digital electronics network. Advanced analysis, modeling and computer simulation of op amps. Analog design techniques and practical examples are covered. Prerequisite: EEL 4314 or Permission of the instructor. (F, alternating years)

EEL 6312 Advanced Electronic Systems II (3). Study of linear properties of electronic systems and design of fault tolerant systems using A/D and D/A and control algorithms. Prerequisite: EEL 6311 or Permission of the instructor. (S, alternating years)

EEL 6315 Advanced Solid State Electronics (3). IC technologies, properties and fabrication concepts. Bipolar, MOS, I²L, CCD, bubble technologies. Ion implantation characteristics. Lithography techniques. Prerequisite: EEL 3396, EEL 4304 or Permission of the instructor. (SS, every third year)

EEL 6332 Thin Film Engineering (3). Thin films used in microelectronics and optoelectronics; deposition

methods; evolution of film microstructure; film growth modeling; introduction to film analysis. Prerequisite: EEL 3396. (SS, alternating years)

EEL 6335 Electrical Transport in Semiconductors I (3). This course focuses on carrier transport fundamentals, beginning at the microscopic level and progressing to the macroscopic effects relevant to semiconductor devices. Prerequisites: EEL 5352, PHY 4604. (F, alternating years)

EEL 6337 Electrical Transport in Semiconductors II (3). This course focuses on quantum phenomena occurring in carrier transport in modern small-size semiconductor devices. Prerequisite: EEL 6335 (Note: PHY 4604 is a prerequisite for EEL 6335).

EEL 6395 Applied Superconductivity (3). Covers the basic physical properties of superconductors. Superconducting devices: squids, memory & logic elements. Emphasis is placed on applications of superconductors. Prerequisites: EEL 3396 and EEL 4410. Corequisite: EEL 6315, EEL 6397 or Permission of the instructor. (S)

EEL 6397 Semiconductor Device Theory (3). Device physics and modeling of GaAs FETS. GaAs analog and digital integrated circuits. Modulation doped field effect transistors. Heterojunction bipolar transistor theory. Prerequisite: EEL 3396. (S)

EEL 6399C Electronic Properties of Materials (3). Properties of materials from which electronic components and structures are fabricated; electrical conduction in metals, semiconductors and insulators; thermal; magnetic; optical. Prerequisite: EEL 3396. (F, alternating years)

EEL 6443 Electro-Optical Devices and Systems (3). Introduction to optical devices and systems such as solid state laser systems, their applications in industry. Also holography, linear and non-linear optical modulation and demodulation concepts. Prerequisites: EEL 4410, EEL 4314. Corequisite: EEL 5563 or Permission of the instructor. (S, every third year)

EEL 6444 Optical Fiber Communication Systems (3). Course focuses on specification, design and application of fiber optic communication systems considering the fiber optic wave guide, optical device sources, photo-detector, receiver and transmitter designs.

Prerequisite: EEL 5501 or Permission of the instructor. (S, every third year)

EEL 6463 Antenna Theory and Design (3). Radiation patterns of dipoles and loops, array analysis and synthesis, self-impedance and mutual impedance, frequency independent antennas and antenna miniaturization, and reflectors and lens antenna. Prerequisite: EEL 4410. (S, alternating years)

EEL 6505C Digital Signal Processing (3). Treatment of digital signal and system characteristics: Z transforms and FFT theory. Real time and correlation functions. Multidimensional signal processing and digital filtering. Prerequisites: EEL 4510, EEL 4314, EEL 5653 or Permission of the instructor. (F)

EEL 6509 Digital Communications by Satellite (3). This course will consider processing and non-processing transponders, earth terminals, propagation link characteristics, multiple access techniques, and spread spectrum techniques. Prerequisite: EEL 5501 or Permission of the instructor. (S)

EEL 6572 Pictorial Information Systems Design (3). Picture input device design, pictorial information systems hardware, picture processor design, picture storage system design, pictorial database system design, picture communication interface design, and engineering applications. Prerequisites: EEL 4709 or CDA 4400. (SS)

EEL 6575 Data Communications Engineering (3). Digital networks for data communications, CCITT, HDLC, SDLC. Real time switching techniques. Microprocessor based network topologies. Busing schemes such as VME, MULTIB, RS232. Prerequisites: EEL 4746 and EEL 4314 or Permission of the instructor. (F)

EEL 6614 Modern Control Theory I (3). Graduate level treatment of modern control systems. Optimal control of feedback systems. Performance measures, Pontryagin's minimum principle, dynamic programming, numerical techniques. Prerequisite: EEL 5171 or Permission of the instructor. (F, alternating years)

EEL 6615 Modern Control Theory II (3). Graduate level course in Stochastic control. Stochastic processes, linear estimation, Kalman filtering techniques in state estimation. Design of feedback control in the presence of noise.

Prerequisite: EEL 6614 or Permission of the instructor. (S, alternating years)

EEL 6673 Identification Theory (3). System modeling, off-line methods, on-line methods, order and structure determination, diagnostic tests and model validation. Prerequisite: EEL 5171. (F, alternating years)

EEL 6681 Fuzzy Systems Design (3). Applications of fuzzy theory to develop design methodologies for various engineering systems. Emphasis will be on systems for pattern recognition, model identification, and automatic control. Prerequisite: Permission of the instructor.

EEL 6726 Digital Systems Engineering II (3). Analysis and design of time shared digital electronic systems. Artificial intelligence and automation. Robotics and remote control systems. Advanced digital instrumentation and testing. Prerequisite: EEL 5725 or Permission of the instructor. (S, every third year)

EEL 6751 Wavelet Theory Applied to Signal Processing (3). Application of wavelet theory to transient and non-stationary signal processing; compression and noise reduction of signals, singularity and edge detection, and time-frequency analysis. Prerequisite: EEL 3135 or equivalent.

EEL 6758 Engineering Design of Microprocessor Based Operating Systems (3). Hardware microprocessor based systems, BIOS (basic input and output), Kernel partitions, memory, stack organization and physical design of operating systems. Prerequisites: EEL 4709 and EEL 4746 or Permission of the instructor. (S, every third year)

EEL 6812 Advances in Neural Networks (3). Latest concepts in artificial neural networks research and newly developed applications. Implementation, convergence in learning algorithms, accuracy refinement, and optimal structure of neural networks. Engineering applications. Prerequisite: EEL 5810. (F, alternating years)

EEL 6821 Computer Vision (3). Image formation and image properties, Radiance and irradiance, introduction to Brain Topography, Color Vision, visual machinery of the brain, statistical pattern classification and decision functions, the eigensystem and its computational aspects, stereo vision, motion vision, size and orientation independence. Prerequisite: EEL 5820. (S)

EEL 6870 Intelligent Computer Design (3). The course involves self testing and correcting type of modular computer system development. Also concepts relating to Artificial Intelligence and Expert systems will be integrated into the computer system design. Prerequisite: EEL 4709. (F, alternating years)

EEL 6905 Individual Work (1-4). Special problems or projects selected by the students and a faculty member. The student conducts the project with a minimum of supervision. Consent of Department Chairperson and Faculty Advisor.

EEL 6916 Graduate Project (1-3). Independent research work culminating in a professional practice-oriented report for the requirements of the non-thesis option of the M.S. degree project. Prerequisites: Fifteen graduate credits and approved project plan.

EEL 6931 Special Topics in Electrical and Computer Engineering (1-3). Course covers advanced topics not in existing graduate courses in electrical and computer engineering. Prerequisite: Permission of the instructor.

EEL 6932 Graduate Seminar (1). An examination of recent technical findings in selected areas of concern. Emphasis is placed on presentations (oral and written), research activities, readings, and active discussions among participants. Prerequisite: Consent of graduate advisor.

EEL 6971 Research Master's Thesis (1-6). The student, following the option of the Master's Degree with thesis, should work for his/her thesis through this course. Prerequisite: Graduate standing.

EEL 6977 Extended Thesis Research (0). For Graduate research students who have completed their sequence of thesis credits, but must register for a course to remain on graduate student status.

EEL 6XXX Computer Visualization of Brain Electrical Activity (3). Computer techniques for the visualization of brain electrical activity. Analysis of the origin of this activity as it relates to its measurement and visualization through computerized systems. Prerequisites: EEL 4510 or permission of instructor.

EEL 6XXX Electronic Neural Systems (3). This course bridges electronics to the understanding of neurobiologically inspired models.

Biological tasks and neural computations are studied in the context of networks and processing elements. Prerequisites: Permission of Instructor.

EEL 6XXX Pattern Recognition (3). Pattern recognition techniques via computer: decision functions, optimum decision criteria, training algorithms, unsupervised learning, feature extraction, data reduction, machine intelligence. Prerequisites: EEL 5524 or Permission of Instructor.

EEL 7979 Advanced Research (1-6). Advanced research credits under the supervision of the dissertation advisor. Prerequisite: Completion of the written comprehensive examination.

EEL 7980 Dissertation (3-12). Doctoral research leading to Ph.D. Electrical Engineering Dissertation. Prerequisite: Permission of graduate committee.

TPA 5213 Performing Arts Technology (2). Applications of structural, mechanical, electrical and electronic technologies to prepare performing arts students for management and production roles. Includes basic circuits and NEC codes, control systems. Prerequisite: Permission of graduate advisor.

Industrial and Systems Engineering

Shih-Ming Lee, *Associate Professor,*
Chairperson

Martha Centeno, *Associate Professor*

Chin-Sheng Chen, *Professor*

Joe Chow, *Associate Professor*

Ronald Giachetti, *Assistant Professor*

Arthur S. Gloster, *Professor*

Gordon R. Hopkins, *Professor*

Khokiat Kengskool, *Associate Professor*

Richard Linn, *Associate Professor*

Kia Makki, *Professor*

Sergio Martinez, *Instructor*

Marc Resnick, *Associate Professor*

Master of Science in Industrial Engineering

Marc Resnick, *Coordinator*

The Master of Science program in Industrial Engineering emphasizes research, as well as course work, and the graduate degree is intended to prepare students for the professional practice of Industrial Engineering.

Admission requirements

The student must meet all University graduate admission requirements. In addition, he or she must also:

1. Have a BS in engineering from an accredited institution or must take prerequisites as required to remedy deficiencies.

2. Must have a "B" average in the last 60 hours of undergraduate work and have a combined score of 1000 on the Graduate Record Examination (verbal and quantitative combined).

3. Applicants meeting only one of the two requirements in no. 2 will be evaluated by the department admissions committee for probationary admissions. Industrial experience and special research will be considered.

4. Foreign students must take the test of English as a foreign language (TOEFL) and obtain a score of 550 or better.

5. Waiver under the 10% rule may be requested if the minimum GPA or GRE are not met. Students admitted under the 10% exception rule will be placed on probation and will be evaluated at the end of 9 credit hours for continuation.

6. Students with degrees from disciplines other than engineering will be required to take additional courses as needed in math, natural sciences and basic engineering.

Available Areas of Concentration

Human Factors/Ergonomics
Integrated Manufacturing
Operations Research/Systems
Engineering

Course requirements

Each MSIE student is required to take a minimum of 31 graduate credit hours to complete the degree program. The one credit hour Graduate Seminar (EIN 6932) is a required course to all MSIE students. Each student is required to select a concentration area as part of the seminar course. Prerequisite and graduate core courses for each concentration area are specified in the following sections. Elective graduate courses are selected by the student with the approval of the thesis advisory committee to support thesis work.

Human Factors/Ergonomics Area

Human Factors is concerned with the design of jobs, consumer products, computer interfaces, machines, machine operations, and work environments, so that they are fully compatible with human characteristics, capacities, limitations and idiosyncrasies. Human Factors practitioners, operating within industrial, commercial, governmental and health organizations are called upon to apply existing human performance knowledge to the design or modification of equipment, and also to generate new experimental data required for equipment design. Accordingly, the MSIE concentration in Human Factors emphasizes both existing content areas and detailed experimental research methodology. Students in this area must have the following prerequisite courses:

EGN 3123 CAD or equivalent

EIN 3235 Evaluation of Engineering Data or equivalent

EIN 3311 Statics or equivalent

EIN 4243 Human Factors

EIN 4314 Work Design and Ergonomics

and must take the following core courses:

EIN 6932 Graduate Seminar 1

EIN 6248 Advanced Ergonomics 3

EIN 6319 Advanced Work Design 3

EIN 5249 Occupational Biomechanics 3

EIN 6971 Master's Thesis 6

Elective graduate courses 15

Integrated Manufacturing Area

The Integrated Manufacturing area reflects a broad interpretation of the role of a manufacturing engineer. This concentration is developed to include product and process design, production planning and scheduling, material flows control, product quality, facilities planning, materials handling, material selection, and manufacturing processes. It emphasizes manufacturing automation, information modeling, and computer based integration of the above manufacturing functions in design, planning, and control of modern manufacturing systems. Students in this area must have the following prerequisite courses:

EIN 3390 Manufacturing

Processes

EGN 3123

ESI 3314

Generic Models 1

or equivalent

EGN 3365 Materials in Engineering

and must take the following core courses:

EIN 6932 Graduate Seminar 1

EIN 6398 Advanced Manufacturing Process

Engineering 3

EIN 6392 Product Design for

Manufacturability and

Automation 3

ESI 6316 Applications of OR in

Manufacturing 3

EIN 6971 Master's Thesis 6

Elective graduate courses 15

Operations Research/Systems Engineering Area

Operations Research deals with the development and application of quantitative techniques to model, analyze, and design complex systems. Students in this area must have the following prerequisite courses:

EIN 3235 Evaluation of

Engineering Data

or equivalent

EIN 3354 Engineering Economy

ESI 3523 Simulation Models of

Industrial Systems

or equivalent

and must take the following core

courses:

EIN 6932 Graduate Seminar 1

ESI 6316 Applications of OR in

Manufacturing 3

STA 6246 Data Analysis I 3

ESI 6524 Applied Industrial

Systems Simulation 3

EIN 6971 Master's Thesis 6

Elective graduate courses 15

Manufacturing Engineering Track

Chin-Sheng Chen, Program Coordinator

The track is tailored for engineers in the manufacturing industry or those entering the industry. It is an interdisciplinary and terminal degree program with emphasis on practices and hands-on experience. Students will be exposed to a full range of manufacturing engineering functions and will be equipped with the knowledge and skills required to design, operate, and improve manufacturing systems of today and tomorrow.

Admission requirements

The student must meet all University graduate admission requirements. In addition, he or she must have:

- 1) a Bachelor of Science degree in engineering or a closely related field from an accredited institution,
- 2) a minimum of "B" average in all upper level course work and
- 3) a minimum score of 1000 on the Graduate Record Examination (verbal and quantitative combined).

Applicants who meet all other required criteria, except for the requirement 2) or 3) above, may be evaluated for provisional admission. Applicants may also be evaluated for admission under the BOR 10% policy waiver. In addition to the above criteria, foreign students whose native language is not English must take the Test of English as a Foreign Language (TOEFL) and obtain a score of 550 or better.

Program requirements

The Manufacturing Engineering Program requires 28 credit hours of course work plus a 3 credit Master's Project (EGN 6971). The program of study must include EIN 6932 Graduate Seminar (1 credit hour), EGN 6437 Manufacturing Systems Design (3 credit hours) and 24 additional credit hours of graduate-level courses. The program of study for each student will be tailored to fit the student's project advisory committee. However, it must consist of at least one course taken from each of the following subject areas:

- 1) product design,
- 2) industrial materials and manufacturing processes,
- 3) production planning and control, quality,
- 4) manufacturing operations management, and

- 6) manufacturing systems techniques.

By taking one course from each of the above subject areas, the student is expected to have the breadth of exposure to all manufacturing engineering activities and to acquire set of solution techniques for modeling, evaluation, implementation, and operations of a manufacturing system. The remaining two courses are elective and reserved for the student to build an in-depth understanding of a selected engineering subject area.

Listings of recommended courses

The courses listed below for each of the six subject areas represent recommended courses only. The student may elect other non-listed graduate courses within each subject area to meet the program requirements. However, he/she must first consult with the academic advisor concerning deviations from these recommendations. Any elective course must fulfill the purpose of the Manufacturing Engineering Program, which is designed to ensure a breadth of manufacturing knowledge as well as an in-depth exposure to the fundamentals of manufacturing engineering in a selected area.

Product Design

- EIN 6392 Product Design for Manufacturability and Automation
 EGN 5435 Product Modeling

Industrial Materials and Manufacturing Process

- EGN 5367 Industrial Materials
 EIN 6398 Advanced Manufacturing Process Engineering
 EIN6436 Manufacturing Process Design

Production Planning and Control

- EIN 6336 Advanced Production Planning & Scheduling

Quality

- EIN 5332 Quality Engineering
 STA 5676 Reliability Engineering

Manufacturing Operations Management

- ACG 6026 Accounting for Managers
 EIN 5322 Engineering Management
 EIN 5359 Industrial Financial Decisions
 FIN 6428 Corporate Finance
 MAN 6245 Organizational Behavior
 MAN 6805 Entrepreneurship

- Manufacturing Systems Techniques
 EIN 6117 Advanced Industrial Information Systems
 ESI 6316 Application of OR in Manufacturing
 ESI 6524 Applied Industrial Systems Simulation

Engineering Management

Shih-Ming Lee, Program Coordinator

Master of Science in Engineering Management

The Master of Science program in Engineering Management (MSEM) develops future leaders of business and industry for a technological environment. The program blends a carefully chosen mix of engineering courses offered by the College of Engineering and business courses offered by the College of Business Administration. In addition, the Program benefits from the experience of practicing managers who address MSEM students as guest speakers.

The MSEM program is designed to offer one of the most appropriate management degrees for those individuals who would like to advance to managerial positions and wish to acquire the necessary knowledge and skills for success. The MSEM curriculum integrates theoretical concepts, case studies and computer software in a simulated business environment where students are challenged to make decisions that have organizational wide impact. Students in the program will have the opportunity to use and learn contemporary software and specialize in a chosen filed of study.

Admission Policies

The student must meet all University graduate admission requirements. In addition:

1. Prospective students are expected to meet all admission requirements of the University's graduate school.
2. The applicant to the MSEM program must have a bachelor's degree in engineering or a closely related field from an accredited institution.
3. The admissions committee, in making the admission decision, will consider the undergraduate GPA in upper division coursework; score on Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT); and the work experience at the executive level.
4. In addition to the above criteria, foreign students whose native language

is not English must take the Test of English as a Foreign Language (TOEFL) and obtain a score of 550 or better.

The GRE/GMAT, TOEFL, and GPA are considered as minimum requirements for admissions. Students backgrounds shall be analyzed to determine if there is a need for remedial courses in addition to the required curriculum. Students are also expected to comply with all course prerequisites.

Degree Requirements

The basic program will consist of 36 credit hours as follows: A core of 12 credit hours of the engineering management and 12 credit hours of the business, 9 credit hours of advised electives in any of the engineering disciplines, and an engineering management capstone project.

Engineering Management Core Courses

Students in the proposed program are required to take four courses (12 credit hours) from the following subjects. These courses serve as the foundation for the future engineering/technology managers.

EIN 5322	Engineering Management	3
EIN 5226	Total Quality Management For Engineers	3
EIN 6117	Advanced Industrial Information Systems	3
ES1 6455	Advanced Engineering Project Management	3

Business Core Courses

Students in the program are required to take four courses (12 credit hours) from accounting, finance, organizational behavior, and marketing (one from each subject area). These courses prepare engineers for business practices.

ACG 6026	Accounting for Managers	3
ACG 6175	Financial Reporting and Analysis	3
FIN 6428	Corporate Finance	3
FIN 6455	Financial Modeling and Forecasting	3
MAN 6245	Organizational Behavior	3
MAN 6204	Organization Management Theory	3
MAR 6209	Organization Design and Behavior	3
MAR 6805	Marketing Management	3
MAR 6158	International Marketing	3

Engineering Electives

Students in the program are required to take three courses (9 credit hours) from engineering subjects of interest, for example, 'telecommunications'. These engineering elective courses will broaden and deepen the student's understanding of technology development. The student's advisory committee will select the elective courses.

Engineering Management Capstone Project

The program is structured as a non-thesis program. However, students in the program are required to conduct an industrial project [EIN 6950] (3 credit hours) to complete the degree program. The Engineering Management project covers contemporary topics and trends in technology development.

Grades and Credits

Students are required to maintain a GPA of 3.0. Courses with a grade below 'C' will not be counted toward the Master of Science degree in Engineering Management.

Transfer Credit

The students may receive permission to transfer up to a maximum of six semester credits provided that: (1) the courses were taken at the graduate level at an accredited college or university; (2) with a grade of 'B' or better; (3) the courses were judged relevant by the student's advisory committee; (4) the credits were not used toward another degree; and (5) the credits were completed within seven years immediately preceding the awarding of the degree. Credits are transferable until the student has earned 12 semester hours in the Engineering Management program.

Time Limit

All works applicable to the Master of Science degree in Engineering Management, including transfer credits, must be completed within seven years immediately preceding the awarding of the degree.

Note: Please see the section of the College of Business Administration for a description of the Business core courses.

Course Description

Description of Prefixes

EGN-Engineering, General EIN-Engineering, Industrial; ES1-Engineering Systems Industrial. F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

EGN 5435 Product Modeling (3). Life cycle product data, geometry and form features, product information models and modeling techniques, product modeling systems, and product data standards. Prerequisites: EGN 3123 or equivalent.

EGN 6436 Manufacturing Process Design (3). Resources modeling, process plan modeling, and planning methodologies for process selection, operations selection, machining parameters selection, setup planning, and inspection planning. Prerequisites: EGN 5842.

EGN 6437 Manufacturing Systems Design (3). System design for production and process planning, resource management, material handling, process control, and quality control. Prerequisite: Permission of the instructor.

EGN 6438 Manufacturing Engineering (3). Manufacturing functions, product and process design, material processing and control, systems design and operations, resource and technology management, and analytical tools for manufacturing. Prerequisites: EIN 3390 or equivalent. (F)

EGN 6971 Master's Project (1-3). Individual work culminating in a professional practice-oriented report suitable for the requirements of the Master of Science in Manufacturing Engineering program.

EIN 5106 Regulatory Aspects of Engineering (3). A survey of the legal and regulatory requirements encountered by engineers. Included will be OSH Act, NIOSH, ADA, EEOC, Worker's Compensation and Product Liability. Prerequisite: Senior standing.

EIN 5226 Total Quality Management for Engineers (3). Fundamentals of TQM and its historical development. Integration of QC and management tools, QFD, benchmarking, experimental design for scientific management. (F,S)

EIN 5249 Occupational Biomechanics (3). Study of the theoretical fundamentals for the mechanics of the body. The link system of the body and kinematic aspects of body movement including applications of biomechanics to work systems. (S)

EIN 5322 Engineering Management (3). Organization of engineering systems including production and service organizations. Inputs of human skills, capital, technology, and managerial activities to produce useful products and services. (F,S)

EIN 5332 Quality Engineering (3). This course examines quality control from an engineering standpoint. It covers ways to meet the challenge of designing high-quality products and processes at low cost. Prerequisite: EIN 3331 or equivalent. (S)

EIN 5359 Industrial Financial Decisions (3). The use of financial techniques and data in planning, controlling and coordinating industrial activities. This course will familiarize the student with accounting concepts and analytical methods. Prerequisite: EIN 3354. (SS)

EIN 5367 Design of Production Systems (3). The design of an industrial enterprise including feasibility, plant layout, equipment specifications, auxiliary services, economics and scheduling. Prerequisite: EIN 3365. (SS)

EIN 5605 Robotic Assembly Cell (3). Concepts of robot manipulation and sensing, part design for robotic assembly, planning manipulator trajectories, machine vision, robot programming language, cell control, and material transfer. Prerequisite: EIN 3600. (S)

EIN 5XXX Engineering Data Representation and Modeling (3). The course will cover the life cycle of designing, developing, and implementing engineering database systems by applying the IDEFLx methodology. Prerequisites: Permission of Instructor.

EIN 5XXX Logistics Engineering (3). Concepts and tools for effective design and management of supply chain systems. Includes logistics strategies, inventory management, customer service, supply chain integration and logistics network design. Prerequisite: Consent of Instructor.

EIN 5XXX Usability Engineering (3). The usability aspects of software

systems design and testing. The theory of interface design for usability and the methods and techniques for designing and testing technology interfaces. Prerequisites: Permission of Instructor

EIN 6117 Advanced Industrial Information Systems (3). Review of the fundamental and theoretical foundation of industrial information systems. Application of the system design process and information system concepts to develop integrated engineering systems. (F,S)

EIN 6248 Advance Ergonomics (3). Analysis of human factors in the design of engineering systems, with emphasis on the interphase of man-machine-media and human limitations in relation to equipment design and work environments. Prerequisites: EIN 4314, EIN 4243, and PCB 3702 or equivalent. (F)

EIN 6258 Ergonomic Design of Aerospace Systems (3). Application of ergonomic criteria in design of civil and military aircraft cockpits and control systems. Ergonomic consideration in design of outer space vehicles, stations, and systems. Prerequisite: EIN 6248.

EIN 6319 Advanced Work Design (3). Study of the various human physiologic systems and their responses as it relates to occupational work including endurance, fatigue, recovery, and energy cost of work. Prerequisites: EIN 6248. (S)

EIN 6336C Advanced Production Planning and Control (3). Analytical and algorithmic planning methodologies, planning and scheduling technologies, sequencing rules, control strategies, and line balancing methods. Prerequisite: EIN 4334.

EIN 6345 Inventory Control Systems (3). Design of non-traditional inventory control systems. Development of several inventory system models. Exploration of methods of collecting appropriate demand and cost data for effective systems analysis. Prerequisite: ESI 3314.

EIN 6357 Advanced Engineering Economy (3). Review of engineering economy and the evaluation of advanced manufacturing systems. Evaluation of alternative capital investments considering income taxes, depreciation, inflation, risk and uncertainty. Prerequisite: EIN 3354. (SS)

EIN 6392 Product Design for Manufacturability and Automation (3). Overview and integration of the design-material-manufacture process. Design considerations for manufacturability, assembly, and economical production. Concurrent engineering systems. Prerequisite: EIN 4395. (S)

EIN 6393 Design and Implementation of Discrete Manufacturing Systems (3). Methodology and techniques for design, planning and implementation of discrete production systems including process/machine selections, material handling and inspection technologies, cell control, etc. Prerequisites: Graduate or seniors with EIN 3365, EIN 3390, and ESI 3523 or equivalent.

EIN 6397 Advanced Topics in Manufacturing Automation (3). Overview of manufacturing systems; evolution of controls and AI, material handling, automation clamps, jigs, and fixtures, cutting sensors, machine vision and autonomous manufacturing. Prerequisites: EIN 6392 and EIN 6398.

EIN 6398 Advanced Manufacturing Process Engineering (3). Non-traditional manufacturing processes. Tool selection, jig and fixture design, material handling, tolerance and dimensioning. Product assembly engineering economics, and manufacturing process planning. Prerequisite: EIN 3390. (F)

EIN 6603 Applied AI/Expert Systems in Industrial Engineering (3). Application of artificial intelligence and expert systems as engineering tools. Exploring the use of PCs and symbolic machine with various AI/Expert Systems software. Several projects are required. Prerequisites: CAP 5680.

EIN 6606 Robotic Systems (3). Basic robotic system principles, functional requirements of robotic systems, simulation of system preliminary design, and physical experimentation of robotic systems.

EIN 6908 Independent Study (1-3). Individual supervised study by a faculty. A study plan and a final report are work required. Prerequisite: Departmental approval. (F,S,SS)

EIN 6932 Graduate Seminar (1). An examination of recent technical findings in selected areas of concern. Emphasis is placed on presentations (oral and written), research activities,

readings and discussions among participants. (F,S)

EIN 6936 Design of Industrial Engineering Systems (3). Overview of systems theories. Systems design process including: Problem definition, analysis, generation of alternatives, systems evaluation, selection of preferred system, and implementation. Prerequisites: EIN 6345, ESI 6316, and ESI 6524.

EIN 6950 Engineering Management Masters Project (1-3). Individual work culminating in a professional practice-oriented report suitable for the requirements of the Master of Science in Engineering Management program. Prerequisite: Permission for the advisor.

EIN 6971 Master's Thesis (1-3). The students following the thesis option should work on his/her thesis through this course. (F,S,SS)

EIN 6XXX Collaborative Engineering (3). Product data management, visualization, collaboration, collaborative product commerce, document management, component supplier management, configuration management, enterprise application integration. Prerequisites: Permission of Instructor.

EIN 6XXX Enterprise Engineering (3). Enterprise processes and functions, enterprise engineering methodology and techniques, enterprise scalability, systems and vertical integration, systems design and implementation. Prerequisites: Permission of Instructor.

EIN 6XXX e-Systems Design (3). The study and application of engineering analysis and design methods for Internet-based systems. The integration of Internet technologies and applications into engineering information systems. Prerequisites: EIN 5xxx Engineering Data Representation and Modeling, EIN 6117 Advanced Industrial Information Systems.

ESI 5XXX Advanced Software Tools for ISE (3). Algorithms and principles to integrate heterogeneous tools. Principles of XML, ASP, and other tools. Development of programming projects.

ESI 6316 Applications of OR in Manufacturing (3). Overview of OR techniques. Manufacturing system and product selection. Shop loading, resource allocation, production scheduling, job sequencing, and plant layout

problems. System performance evaluation. Prerequisite: ESI 3314. (F)

ESI 6319 Operations Research and Information Technology (3). Principles and paradigms for the design and implementation of OR models, which may be integrated into an organization's existing information system and technologies. Prerequisite: ESI 6316.

ESI 6455 Advanced Engineering Project Management (3). This course covers entire phases of project management including selection, planning, budgeting, scheduling, monitoring, and control. It focuses on the management of engineering projects through case studies and independent research assignment. Prerequisite: Permission of the instructor. (S,SS)

ESI 6524 Applied Industrial Systems Simulation (3). Advanced simulation techniques with a focus on practical systems modeling using several user-oriented simulation languages. Projects involving design of high-performance simulation programs are required. Prerequisite: ESI 3523. (S)

ESI 6528 Advanced Topics in Simulation Modeling (3). An examination of the role of artificial intelligence, object oriented programming, and databases as enabling technologies in the simulation modeling process. Review of the literature and case studies. Prerequisite: ESI 6524 or equivalent.

ESI 6546 Network Flow Analysis (3). Deterministic and stochastic network flow analysis; minimal cost flow, shortest route, max-flow, and out-of-kilter algorithms; constrained network analysis; and stochastic queueing networks. Prerequisite: ESI 3314.

ESI 6547 Stochastic Models of Industrial Systems (3). Applications of models from gaming, decisions analysis, queueing, inventory and scheduling to assess the performance level of industrial systems operating under random conditions. Prerequisite: ESI 6316.

ESI 6XXX Data Warehousing and Mining (3). Knowledge discovery for effective design of data storage. Discussion of the difficulties associated with data warehousing and mining. Literature review and case studies.

Mechanical Engineering

Norman Munroe, *Associate Professor and Acting Chairperson*

Richard Irey, *Professor and Interim Dean*

Yiding Cao, *Associate Professor*

Claudius Carnegie, *Adjunct Professor*

Eric Crumpler, *Assistant Professor*

M. Ali Ebadian, *Professor*

Esam Hamad, *Associate Professor*

Gordon Hopkins, *Professor*

W. Kinzy Jones, *Professor*

Cesar Levy, *Professor*

Jose Marina, *Adjunct Professor*

Anthony McGoron, *Assistant Professor*

James E. Moore, Jr., *Associate Professor and Coordinator, Graduate Studies*

Luis Pujol, *Instructor*

Ian, Radin, *Adjunct Professor*

Diana Rincon, *Assistant Professor*

Carmen Schenck, *Counselor Advisor/Instructor*

Richard Schoephoerster, *Associate Professor*

Ibrahim Tansel, *Associate Professor*

Yong Xin Tao, *Associate Professor*

Sabri Tosunoglu, *Associate Professor*

Kuang-Hsi Wu, *Professor*

Mark Zampino, *Lab Manager*

Master of Science in Mechanical Engineering

Admission Requirements

The Department of Mechanical Engineering offers both thesis and non-thesis options for the Master's Degree. A student seeking the Master's degree with or without thesis is required to pass a comprehensive oral or written examination.

All work counted for the Master's degree must be completed during the six years immediately following the date of admission.

The program provides a broad education, covering more than one field, followed by in-depth studies in areas of interest.

Admission Requirements

The following is in addition to the University's graduate admission requirements:

1. A student seeking admission into the program must have a bachelor's degree in engineering, physical sciences, computer science or mathematics from an accredited institution, or, in the case of foreign students, from an institution recognized in its own country as preparing

students for further study at the graduate level.

2. An applicant must have achieved a "B" average, GPA of 3.0 in upper level undergraduate work and a combined score of 1650 on the Graduate Record Examination with the following minimum scores on the individual components: verbal ≥ 350 , quantitative ≥ 650 , analytic ≥ 550 .

3. Applicants who have not satisfied the above will be evaluated for probationary or 10% waiver admission.

4. In addition to the above criteria, foreign students whose native language is not English, must take the Test of English as a Foreign Language (TOEFL) and obtain a score of 550 or better.

5. The GPA, GRE and TOEFL scores specified above are to be considered minimum requirements for admission. Applicants from science areas other than mechanical engineering will be expected to complete undergraduate courses selected to prepare them for graduate courses in their area of interest. Full admission to the graduate program requires the completion of these background courses with no grades below 'C' and a grade point average of 3.0 or better.

Graduation Requirements

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the Department.

2. Certification provided by the Department Chair and College Dean that all degree requirements have been met.

3. Completed the three department core course requirements plus the two required core courses in the student's major area.

4. Completed undergraduate course deficiencies specified at admission, if any, with no grades below 'C' and a GPA ≥ 3.0 .

5. **Thesis degree:** Successfully completed a minimum of 31 semester hours of graduate course work as specified in an approved study plan containing at least 6 hours of 6000 level courses with a GPA ≥ 3.0 (the minimum successful grade is a 'C'; not more than six semester hours transferred from another accredited graduate program that was not part of a previously awarded degree may be incorporated in the study plan) plus a minimum of six hours of masters thesis.

Non-thesis degree: Successfully completed a minimum of 33 semester hours

of graduate course work as specified in an approved study plan containing at least 9 hours of 6000 level courses with a GPA ≥ 3.0 (not more than six semester hours transferred from another accredited graduate program that was not part of a previously awarded degree may be incorporated in the study plan).

6. **Thesis degree:** Successful public oral defense of the thesis. Submission of the approved thesis to the Graduate School.

Non-thesis degree: Successful completion of a final oral comprehensive examination covering the general objectives of the study plan.

7. Students must achieve an overall GPA ≥ 3.0 in all graduate work completed at FIU in their approved study plan.

8. **Full-Time Students:** Completed one semester of the Graduate Seminar course.

9. Complied with all relevant University policies and regulations.

Thesis Option

A student shall complete a minimum of 24 semester credit hours of course work, plus a minimum of 6 semester credit hours of EML 6971, Master's Thesis, and one semester of the ME Graduate Seminar.

The course requirements include a minimum of 12 hours of 6000-level course credit including thesis hours. A maximum of 6 credit hours of courses offered by other departments may be included among the 24 course hour minimum. A maximum of three credit hours of approved independent studies, EML 6908, may be counted toward the M.S. thesis degree. A maximum of six graduate credit hours can be transferred from other accredited institutions provided that the courses have not been used for another degree and have a minimum letter grade of 'B'. Transfer courses must be approved by the advisor and Graduate Coordinator.

Early in the program (before the end of the second term) the student and advisor will complete a study plan that specifies the courses that will comprise the program.

When the thesis research is completed, the student should schedule a defense with an examining committee appointed through the Graduate School consisting of at least three faculty members (at least two of whom should be from the department). The thesis, with an approval cover letter from the advisor, should be given to the examining committee for review not

less than 10 days before the scheduled defense. The candidate should prepare to summarize the thesis in the manner of a technical paper using appropriate visual aids in 40 minutes or less. Following the presentation, the candidate will answer questions related to the work from the audience and/or the committee. At the conclusion of the defense, the committee will agree on the outcome -pass or fail- and report the results to the graduate school. Following the exam the student will implement the committee's suggestions for improving the draft document. Each committee member must sign the approval form bound in the final document. Hardcover bound copies of the approved thesis must be provided to the advisor, department, and the library.

Non-Thesis Option

A student shall complete a minimum of 33 semester credit hours of graduate course work, and one semester of Graduate Seminar. Non-thesis students are encouraged to do a three-credit project under the independent study course registration. An approved study plan must include at least 12 credits of 6000 level graduate course work, including the project if elected. Up to nine credit hours of graduate course work from other departments may be included among the minimum of 33 credits. A maximum of six graduate credits from other accredited graduate programs completed with a 'B' or better and not counted toward a previous degree may be included in the study plan. The advisor and the Graduate Coordinator must approve transfer courses if they are to be included in a study plan. A maximum of three credits of independent study beyond an independent project may be included in a study plan.

Non-thesis students are required to take a final oral comprehensive exam dealing with the objectives of their study plan. If a project has been completed, the student will briefly summarize the project report (20 minutes) as a part of the exam. The examining committee will include a minimum of three faculty members, at least two of whom should be from the department.

Areas of Specialization

Air Conditioning and Refrigeration
Applied Mechanics
Bioengineering/Biomechanics
Computer Aided Engineering
Design

Electronic Packaging
Energy Systems
Environmental and Waste Management
Finite Element Analysis
Fluid Mechanics
Heat Transfer
Manufacturing
Material Science
Robotics
Thermal Sciences

Course Requirements

All MSME degree seeking students must take the following two courses or equivalent plus one seminar as common core courses:

EGM 5315 Intermediate Analysis of Mechanical Systems 3
EGM 5346 Computational Engineering Analysis 3
EML 6935 Graduate Seminar 1

Select one of the following two courses with advisor approval:

EGM 5354 Finite Element Method Applications in Mechanical Engineering 3
EGM 6422 Advanced Analysis of Mechanical Systems 3

An additional six credit hours of core courses must be taken depending on the area of interest.

Thermo/Fluid/Biomedical Area:

EML 5709 Intermediate Fluid Mechanics 3
EML 6725 Computational Fluid Dynamics 3

Mechanics/Materials Area:

EGM 5615 Synthesis of Engineering Mechanics 3
EGM 6570 Fracture Mechanics 3

Design and Manufacturing Area:

EML 5530 Intermediate CAD/CAE3
EML 5385 Identification Techniques of Mechanical Systems 3

A minimum of 9 (thesis) or 18 (non-thesis) credit hours are to be taken from the following Mechanical Engineering courses. (Up to a maximum of six (thesis) or nine (non-thesis) semester hours may be taken from courses offered by other departments).

Doctor of Philosophy in Mechanical Engineering

Admission Requirements

The requirements for admission to the doctoral program in Mechanical Engineering for applicants having a Bachelor's degree in Mechanical Engineering from an accredited institution are the following:

a) GPA of at least 3.0/4.0 in the last 60 credit hours attempted

b) GRE of at least 1700 points with the following minimum on the individual components: verbal ≥ 400 , quantitative ≥ 650 , analytic ≥ 550 .

c) Three letters of recommendation.

d) For foreign students whose native language is not English a TOEFL score of at least 550 is required.

e) Applicants having a Master's degree in Mechanical Engineering from an accredited institution must also satisfy the above requirements for admissions to the doctoral program; however a GPA of at least 3.3/4.0 in the Master's program is also required.

Credentials of all other applicants will be examined by the Graduate Admission Committee on a case by case basis.

In addition to the departmental requirements, all students must satisfy the University's Graduate Policies and Procedures.

Identification of Research Area

Within 15 months upon acceptance into the Ph.D. program, the student has to identify an area of research of his or her interest by contacting and being accepted by a professor willing to guide the dissertation research. If no professor is obtained, the student will be dismissed from the Ph.D. program. Contact the department for a list of the graduate faculty members and their research interests.

Course Requirements

Applicants having a Bachelor's Degree in Mechanical Engineering are required to complete at least 90 credit hours, of which at least 66 hours must be course work and 24 hours dissertation. The credit hours earned towards the Ph.D. program have the following requirements:

1. At least 36 credits at the 5000 level or higher, not to include dissertation.

2. At least 21 credits at the 6000 level or higher, not to include dissertation.

3. A minimum of 9 semester credits in Mathematics.

4. A maximum of 18 credits outside the areas of Mathematics and Mechanical Engineering.

5. A minimum of 24 credits of dissertation.

A maximum of 6 semester hours of graduate credit earned from another accredited institution that was not used for a previous degree may be transferred as long as the courses were

completed within the six years preceding admission to the program.

Applicants having a Master's Degree in Mechanical Engineering from an accredited institution may include a maximum of 30 semester hours as part of their requirements.

Fast-Track Ph.D. Program

MSME students whose higher education goal is to receive the Ph.D. degree in Mechanical Engineering may apply for the fast-track Ph.D. program up to one semester prior to the completion of their MSME degree requirements.

Application for the fast-track Ph.D. program will be evaluated and must be approved by the graduate committee and the student's advisor. If the student withdraws from this program before receiving the Ph.D. degree, the student remains eligible to receive the MSME degree provided that they fulfill all requirements for that degree.

Students who qualify for the fast-track Ph.D. option will have 6 credit hours of master's thesis waived, but the students will meet all the requirements of the Ph.D. program.

Core Courses

Mathematics: 9 credit hours selected from the following list:

MAA 4402	Complex Variables ¹
MAS 5145	Applied Linear Algebra
STA 5206	Design of Experiments
MAD 5405	Numerical Methods
STA 5126	Fundamentals of Design of Experiments
MAP 4401	Adv. Differential Equations ¹
STA 5236	Regression Analysis
MAP 5236	Math. Tech. of Oper. Research
STA 5676	Reliability Engineering
MAP 5407	Methods of Applied Analysis
STA 5800	Stochastic Proc for Engineers
STA 5505	Nonparametric Methods
STA 6166	Statistical Methods in Research I
STA 6167	Statistical Methods in Research II
STA 6176	Biostatistics
STA 6246	Data Analysis I
STA 6247	Data Analysis II
STA 6326	Mathematical Statistics I
STA 6327	Mathematical Statistics II
STA 7707	Multivariate Methods I
STA 7708	Multivariate Methods II

¹These are the only two undergraduate courses that are allowed.

Engineering: 18 credit hours as listed below:

EGM 5315	Intermediate Analysis of Mechanical Systems
EGM 5615	Synthesis of Engineering Mechanics
EGM 6422	Adv. Analysis of Mechanical Systems
EMA 5935	Adv. Topics in Materials Engineering
EML 5530	Intermediate CAD/CAE
EML 5709	Intermediate Fluid Mechanics

Dissertation: 24 credits

Elective Courses: An additional 39 credit hours available to students admitted directly based on a Bachelors degree. Possible elective courses from the Mechanical Engineering department include:

Thermo/Fluid

EGM 6586	Fluid Mechanics Applications in Physiological Systems
EGM 6587	Applied Biomedical & Diagnostic Measurements
EGM 6588	Solid Mechanics Applications in Physiological Systems
EML 5103	Intermediate Thermodynamics
EML 5104	Classical Thermodynamics
EML 5152	Intermediate Heat Transfer
EML 5606C	Advanced Refrigeration & A/C Systems
EML 5615C	Computer Aided Design in A/C
EML 5708	Advanced Design of Thermal and Fluid Systems
EML 6153C	Advanced Heat Transfer
EML 6154	Conduction Heat Transfer
EML 6155	Convection Heat Transfer
EML 6157	Advanced Radiation Heat Transfer
EML 6712C	Advanced Fluid Mechanics
EML 6714	Advanced Gas Dynamics
EML 6725	Computational Fluid Dynamics

Mechanics/Materials

EGM 5346	Computational Engineering Analysis
EGM 5354	Finite Element Method Appl in ME
EGM 6570	Fracture Mechanics
EMA 5295	Principles of Composite Materials
EMA 5507C	Analytical Techn. of Materials Sciences

EMA 5935	Advanced Topics in Materials Engineering
EMA 6127C	Advanced Physical & Mechanical Metallurgy
EMA 6165C	Polymer Physics & Analytical Techniques
EML 5505	Smart Machine Design and Development
EML 5509	Mechanical Design Optimization
EML 5125	Classical Dynamics
EML 5385	Identification Techniques of Mech. Systems
EML 5562	Advanced Electronic Packaging
EML 6223	Advanced Mech. Vibration Analysis
EML 6233	Fatigue and Failure Analysis
EML 6805	Advanced Design of Robots

Design and Manufacturing

EML 5385	Identification Techniques of Mechanical Systems
EML 5505	Smart Machine Design and Development
EML 5509	Mechanical Design Optimization
EML 5562	Advanced Electronic Packaging
EML 5808	Control Technology for Robotic Systems
EML 5825	Sensors and Applied Machine Intelligence
EML 6223	Advanced Mechanical Vibration Analysis
EML 6532	Advanced CAD/CAE
EML 6805	Advanced Design of Robots

Residency Requirements

The program will provide student access to a wide range of support facilities including research library, cultural events, and other occasions for intellectual growth associated with campus life, significant faculty/student interaction, opportunities for student exposure to and engagement with cognate disciplines and research scholars working in those disciplines, and significant peer interaction among graduate students. Students will be provided with the opportunity for a mentoring apprentice relationship with faculty and students as well as adequate time for in-depth evaluation of the student. To satisfy the residency requirement for the Ph.D. degree, the candidate must complete a minimum of 18 credit hours within a period of 12 months at the University.

Graduate Supervisory and Research Committee

The student's Ph.D. Graduate Supervisory and Research Committee should be appointed as soon as possible and no later than 15 months after being admitted to the Ph.D. program. Consult the Graduate Guidelines in the department for more details on how to select the committee members.

Ph.D. Course Breadth Requirements

Breadth criteria could be satisfied for students admitted prior to Spring 1996 by taking 2 courses in 1 field/area outside the student's own field. For students admitted after Spring 1996, by taking 3 courses in a field/area outside student's own field.

Examinations and Proposal and Final Defense

Student must demonstrate graduate knowledge acquisition in four incremental stages in order to be awarded a Ph.D. in Mechanical Engineering.

Stage I - Qualifying Exam (QE)

Stage II - Proposal Defense (Graduate Seminar)

Stage III - Comprehensive Exam (CE)

Stage IV - Final Defense

In the semester prior to his/her taking the QE or CE, student must declare intention to take QE or CE and must declare a major field or area of research.

I. Qualifying Exam (QE)

General written exam to test masters level knowledge.

A student who is admitted to the Ph.D. program with a bachelors degree must take the QE no later than the beginning of the 3rd year after admission, and a student who enters the Ph.D. program with a masters degree must take and pass the QE no later than the beginning of the 2nd year after admission. Students may petition for exceptions from the graduate student committee. A student who fails the QE may retake the exam once only.

II. Proposal Defense (PD)

The dissertation proposal will be presented by the student in the form of a Graduate Seminar in which he/she must submit a proposal for his/her dissertation.

Students must declare their proposal subject after taking the Qualifying Exam but before taking the Comprehensive Exam.

III. Comprehensive Exam (CE)

The objective of the CE is to assess the depth of knowledge in the major field of research. The examination will be developed by the student's dissertation committee. It must be taken before the end of the 2nd semester of Year 3.

IV. Final Defense (FD)

There will be a public defense at a graduate seminar. The defense can be failed no more than twice.

The final defense should be presented no later than the 4th year after the master's degree and no later than the 6th year after the bachelor's degree.

Following the successful defense of the dissertation, as determined by a majority vote of the student's examining committee, the dissertation must be forwarded to the Dean of the College of Engineering and the Dean of Graduate Studies for their approval.

All dissertations submitted in fulfillment of the requirements for graduate degrees must conform to University guidelines (see "Regulations for Thesis and Dissertation Preparation"). One final and approved copy of the dissertation must be delivered to the Chairperson of the Department of Mechanical Engineering. Library copies must conform to University guidelines, also published in "Regulations for Thesis and Dissertation Preparation."

Financial Aid

Consult the Department for information on research and teaching assistantships available for doctoral students.

Course Descriptions

Definition of Prefixes

EGM - Engineering Mechanics; EGN - Engineering General; EMA - Engineering Materials; EML - Engineering Mechanical

EAS 5124 **Aerodynamics and Flight Mechanics (3)**. Fundamentals of aerodynamics, definition of aerodynamic shapes, analysis of aerodynamic forces, airplane performance, and flight stability and control. Prerequisites: EGN 3321, EML 3126, EGN 3343.

EAS 6185 **Turbulence (3)**. Fundamentals of turbulent flow, solutions for bounded and free turbulent flows, dynamics of turbulence, statistical description of turbulence, spectral dynamics, and stability.

EGM 5315 **Intermediate Analysis of Mechanical Systems (3)**. First course at the graduate level in the analysis of mechanical systems. Modeling of the

system and analytical and numerical methods of solution of the governing equations will be studied. Fluid and thermodynamic systems will be emphasized in this course. Prerequisite: EGM 3311 or Permission of the instructor.

EGM 5346 **Computational Engineering Analysis (3)**. Application of computational methods to mechanical engineering problems of translational, rotational, control, thermal and fluid systems employing linear/nonlinear system elements. Prerequisites: EML 2030 or CGS 2420 or CGS 2423, MAP 2302 or EGM 3311, and EML 3222, or permission of the instructor.

EGM 5354 **Finite Element Method Applications in Mechanical Engineering (3)**. Utilize the finite element method to solve problems in heat transfer, fluid dynamics, diffusion, acoustics, vibration, and electromagnetism, as well as the coupled interaction of these phenomena. Prerequisites: EML 2030 or CGS 2420, EMA 3702, and EML 4140.

EGM 5585 **Biotransport Processes (3)**. Transport of fluid, heat, and mass in the human body. Application to dialyzers and heart-lung devices. Prerequisites: EML 3126L and EML 4140.

EGM 5615 **Synthesis of Engineering Mechanics (3)**. Unified approach to the analysis of continuous media using constitutive equations, mechanical behavior of materials and their usefulness in handling failure theories and composite materials. Prerequisites: MAP 2302 or EGM 3311, and EMA 3702.

EGM 5935 **Review of Topics in Mechanical Engineering (4)**. To prepare qualified candidates to take Mechanical Engineering PE written examination. Reviewed courses include Thermodynamics, Fluid Mechanics, Mechanics of Materials, Mechanical Design and Heat Transfer.

EGM 6355 **Nonlinear Finite Element Analysis (3)**. Nonlinear finite element analysis. Geometric and material nonlinearities will be considered in the formulation of different finite elements. Prerequisite: Permission of the instructor.

EGM 6422 **Advanced Analysis of Mechanical Systems (3)**. Modeling of vibrational and dynamic systems including solution of governing equations by analytical and numerical techniques. Prerequisite: EGM 5315 or Permission of the instructor.

EGM 6455 Impact Dynamics (3). Mechanical impact, point-mass collisions, vibratory impact, stress waves in solids, elastic-plastic stress waves, low velocity impact, penetration and perforation applications. Prerequisites: EGN 3321 and EMA 3702.

EGM 6570 Fracture Mechanics (3). Griffith's and Irwin's fracture criteria; stress intensity factors evaluation; crack-tip plastic zone; fracture toughness measurement; crack initiation; fatigue crack growth; stress corrosion cracking. Prerequisite: EGM 5615.

EGM 6586 Fluid Mechanics Applications in Physiological Systems (3). Fluid mechanics principles including finite element and finite difference methods as it is applied to the analysis of various physiological systems will be covered. Process flow, diffusion and transport will be discussed in cardiovascular and pulmonary systems. Application of these primarily in the design of heart-lung machines, dialysis units, and heart valves will be discussed. Prerequisite: EGM 4580 or Permission of the instructor.

EGM 6587 Applied Biomedical and Diagnostic Measurements (3). Fundamentals of biomedical measurements and the design of biomeasurement systems and devices. This includes transducers and electrodes, EMG, EEG, ECG and medical imaging techniques, and electrical safety. Prerequisite: EGM 4580 or Permission of the instructor.

EGM 6588 Solid Mechanics Applications in Physiological Systems (3). Solid mechanics and numerical methods as applied to rheology analysis of the musculoskeletal system and trauma. Design application in orthotics and prosthesis and heart valves. Prerequisite: EGM 4580 or Permission of the instructor.

EGM 6589 Advanced Biofluid Mechanics (3). Applications of fluid mechanics principles to human circulatory systems. Unsteady blood flow and wave propagation in elastic tubes. Influence of fluid dynamics on thrombosis and atherosclerosis. Prerequisite: EGM 6586.

EGM 6593 Advanced Cardiac Mechanics (3). Applications of principles of solid mechanics to the human cardiovascular system. 3D reconstruction of the left ventricle, contractile properties and stress distribution in the myocardium. Prerequisite: EGM 6588.

EGM 6654 Advanced Theory of Elasticity (3). Modern methods of stress and strain analysis including two-dimensional problems of stress concentration, contact adhesion, friction, thermal stresses, and dynamic waves. Prerequisites: EGM 5615, EGM 5315, or Permission of the instructor.

EGM 7456 Advanced Impact Dynamics (3). High velocity impact mechanics, hyper velocity impact mechanics, penetration mechanics, long rod and plate penetration mechanics, dynamic fracture, kinetic energy penetration, analytical modeling. Prerequisite: EML 6455 and Permission of the instructor.

EGM 7574 Advanced Fracture Mechanics (3). Modern fracture mechanics including invariant integrals, nanoscale fracture, environmental fracture, penetration mechanics, failure waves, erosion, and fracture by electron and laser beams. Prerequisites: EGM 6570, EGM 6422.

EGM 7575 Cutting Mechanics (3). Study of cutting stress, impact stress, stress and strain waves, tensile failure, shear-tension couples, responses in cutter and material, mechanics in body, fiber and molecular structures. Prerequisites: EML 6455 and Permission of the instructor.

EGM 7676 Classic Topics of Non-linear Mechanics (3). Classic topics on nonlinear mechanics, such as Theory of Plasticity of Solids, and the Theory of Jets and Cavities of Fluids. Prerequisites: EGM 5315, EGM 6422, EGM 5615, EML 5709.

EGN 5367 Industrial Materials and Engineering Design (3). Industrial materials, material selection, and engineering design process, including synthesis, analysis, optimization, and evaluation.

EMA 5295 Principles of Composite Materials (3). The mechanical behavior of composite materials used in the automotive, aircraft and sporting goods industries; material and laminar properties; design of composites; failure analysis; and environmental effects. Prerequisite: EGM 5615 or Permission of the instructor.

EMA 5507C Analytical Techniques of Materials Science (3). Fundamental theories and techniques of the analytical methods for materials including: X-ray diffraction, scanning and transmission electron microscopy, thermal and

surface analysis, and vacuum systems. Prerequisite: EGN 3365.

EMA 5584 Biomaterials Science (3). Materials used in prostheses for skin and soft tissue, vascular implant devices, bone repair, and artificial joints. Structure-property relationships for biological tissue. Prerequisites: EGN 3365 and EMA 3702.

EMA 5935 Advanced Topics In Materials Engineering (3). Topics include thermodynamics of solids, principles of physical metallurgy, including phase transformation and diffusion and analytical methods in materials engineering. Prerequisite: EGN 3365 and EGM 3343.

EMA 6126 Advanced Physical Metallurgy (3). Energetics of phase transformation and spinodal decomposition, homogeneous and heterogeneous nucleation in solid state reactions, and martensite transformations. Prerequisites: EMA 4121 or Permission of the instructor.

EMA 6127C Advanced Physical and Mechanical Metallurgy (3). Advanced topics in physical and mechanical metallurgy including statics and dynamics of dislocations, plastic deformation of fracture, creep solidification, phase transformation, and heat treatment. Prerequisite: EGN 3365 or Permission of the instructor.

EMA 6165C Polymer Physics and Analytical Techniques (3). Topics in polymers and the analytical techniques, including: synthesis, characterization, state of polymers, plasma processes, X-ray diffraction, scanning and transmission electron microscopy. Prerequisite: EGN 3365 or Permission of the instructor.

EMA 6185 Advanced Mechanics of Composite Materials (3). Study of micromechanics and mechanical processes in microscale, including fracture, reinforcement and delamination. Prerequisite: EMA 5295.

EMC 5415 Digital Control of Mechanical Systems (3). Discrete modeling of mechanical systems. Digital feedback systems. Computer interface of mechanical systems. Controller design with emphasis on hydraulic, pneumatic and electromechanical devices. Prerequisite: EML 4312.

EML 5103 Intermediate Thermodynamics (3). Thermodynamic approach to processes and engines; alternative formulations and Legendre transformations; Maxwell relations, first and

second order phase transitions. Prerequisite: EML 3101.

EML 5104 Classical Thermodynamics (3). Mathematical analysis of the laws of classical reversible and irreversible thermodynamics. Applications to mechanical, electromagnetic, and chemical systems, under ideal and real conditions. Prerequisite: EML 3101.

EML 5125 Classical Dynamics (3). Kinematics of rigid body motion, Eulerian angles, lagrangian equations of motion, inertia tensor, momental ellipsoid. Rigid-body equations of motion, Euler's equations, force-free motion, polhode and herpolhode, theory of tops and gyroscopes. Variational principles. Hamiltonian equations of motion. Poincaré representation. Prerequisites: MAP 2302 or EGM 3311, and EGN 3321.

EML 5152 Intermediate Heat Transfer (3). Multi-dimensional heat conduction under steady and transient conditions. Heat, mass and momentum transfer. Radiation heat transfer. Gas radiation. Free and forced convection. Prerequisite: EML 4140.

EML 5385 Identification Techniques of Mechanical Systems (3). FFT, time series analysis and neural networks are introduced. Applications of these techniques are discussed for identification of mechanical structures, and machine diagnostics. Prerequisite: EML 4312.

EML 5412 Combustion Processes (3). Introduction to combustion processes, thermochemistry, chemical kinetics, laminar flame propagation, detonations and explosions, flammability and ignition, applications in IC engines and gas turbines. Prerequisites: EML 3101 and EML 4140.

EML 5505 Smart Machine Design and Development (3). Design of independently operating smart electromechanical systems (most consumer products) which monitor their environment, give decisions, and create motion. Prerequisites: EML 4312 or consent of instructor.

EML 5509 Mechanical Design Optimization (3). Finite element analysis and sensitivity analysis combined with numerical optimization techniques to optimize the design. Prerequisite: EGM 5354 or Permission of the instructor.

EML 5519 Fault-Tolerant System Design (3). Fault tolerance in mechanical, manufacturing, computer, and aerospace systems. Basic stages of fault

isolation. Fault tolerance measures, architectures, and mechanical system design methodologies. Prerequisite: EML 3500.

EML 5530 Intermediate CAD/CAE (3). Computer aided geometrical modeling of spatial mechanical systems. Design criteria and analytical approaches for planer kinematic systems will be emphasized. Prerequisites: EML 4535, or Permission of the instructor.

EML 5562 Advanced Electronic Packaging (3). Advanced topics in electronic packaging. Evaluation of first through fourth level assembly. Applications of computer layout design, thermal management and mechanical stability analysis. Prerequisite: EML 4561 or Permission of the instructor.

EML 5599 Heat Pipe Theory and Applications (3). Heat pipe theory, heat pipe design and its applications, especially in the areas of energy conversion and conservation. Prerequisites: EML 3101 and EML 4140.

EML 5606C Advanced Refrigeration and Air Conditioning Systems (3). The various methods used in the thermal design and analysis of both refrigeration and heat pump systems are investigated. Various methods of producing heating and cooling are examined including vapor compression, absorption, air cycle, steam jet, thermoelectric, solar heating and cooling systems. Prerequisite: EML 4601.

EML 5615C Computer/Aided Design in Air Conditioning (3). Software will be used to demonstrate heating, ventilating and air conditioning design concepts and sizing equipment and determining performance parameters. Project design is required. Prerequisites: EML 2030 or CGS 2420 or CGS 2423, and EML 4601.

EML 5708 Advanced Design of Thermal and Fluid Systems (3). Advanced design of pumps, compressors, heat exchangers, HVAC systems and thermal and fluid control devices. Prerequisite: EML 4706.

EML 5709 Intermediate Fluid Mechanics (3). Basic concepts and scope of fluid dynamics; non-inertial reference frames. Two-dimensional potential theory. Applications to airfoils. The Navier-Stokes equations; selected exact and approximate solutions. Prerequisite: EML 3126.

EML 5748 Boundary Layer Theory (3). Advanced fluid dynamic analysis of the Navier - Stokes equation using boundary layer assumptions. Focus will be on solutions of thermal and fluid boundary layers. Prerequisite: EML 3126.

EML 5808 Control Technology for Robotic Systems (3). State-space equations of robots. Controller design based on linearization, nonlinearity cancellation, optimal control, adaptive control and other methods. Stability analysis, performance comparison. Prerequisites: EGN 3321, EML 4312 or equivalent.

EML 5825 Sensors and Applied Machine Intelligence (3). Sensors, signal analysis techniques, and error compensation methods will be introduced for machine intelligence. Production Machine Modeling and Design. Prerequisites: EML 4312 or Permission of the instructor.

EML 6153C Advanced Heat Transfer (3). Review of analogies among heat, mass and momentum transfer. Free and forced convection from theoretical and experimental viewpoint for laminar and turbulent flows. Film and dropwise condensation. Prerequisite: EML 5152.

EML 6154 Conduction Heat Transfer (3). Heat transfer by conduction for steady and unsteady one and multidimensional systems with and without heat generation. Temperature distribution analysis using analytical and computational methods. Prerequisite: EML 4140.

EML 6155 Convection Heat Transfer (3). Development and solution of governing equations of parallel flows, boundary layer flows, instability and turbulence with convective heat transfer. Prerequisite: EML 4140.

EML 6157 Radiation Heat Transfer (3). Heat transfer by radiation for steady and unsteady one and multi-dimensional systems. Radiation parameters effecting different systems will be studied, analytically or numerically. Prerequisite: EML 4140.

EML 6223 Advanced Mechanical Vibration Analysis (3). Multidegree of freedom systems, discrete and continuous systems; vibration control and introduction to vibration of non-linear systems. Prerequisite: EML 4220.

EML 6233 Fatigue and Failure Analysis (3). A study of the theoretical and practical aspects of material failure

including failure modes, life prediction, corrosion with the goal of designing a safe product. Prerequisite: EGM 5615.

EML 6245 Advanced Tribology (3). Analyses of friction, wear, and flash temperature. Theories of elastohydrodynamic and mixed lubrications. Tribology of advanced materials. Prerequisite: EML 4246 or permission of the instructor.

EML 6518 Advanced Modeling in Mechanical Engineering (3). Basic principles of mathematical modeling following a variety of problems in mechanical engineering. Prerequisites: EGM 6422 and EGM 5615.

EML 6532 Advanced Computer-Aided Design/Computer-Aided Engineering (3). Advanced CAD techniques in design of mechanical systems. Architecture of CAD systems including, database applications. Advanced computational geometry student programming. Prerequisites: EML 5530.

EML 6574 Advanced Mechanical Design Optimization (3). Advanced topics in numerical optimization, sensitivity analysis, approximation techniques and shape optimization. Prerequisite: EML 5509.

EML 6712C Advanced Fluid Mechanics I (3). Turbulent flows with emphasis on engineering methods. Momentum, energy, and species transfer. Production, dissipation, and scaling laws for turbulence. Mixing length, effective viscosity. Prerequisite: EML 5709.

EML 6714 Advanced Gas Dynamics (3). Thermodynamic and fluid mechanics principles applied to high speed flows. Flows to be studied include flows with friction and heat loss/addition. Prerequisite: EML 4711.

EML 6725 Computational Fluid Dynamics (3). Basic computational methods for incompressible and compressible flows. Methods for solving the stream function equation. Boundary conditions for vorticity and stream function equations. Finite difference and finite element techniques. Prerequisites: CGS 2420, EML 6712.

EML 6747 Mechanics of Fluid Flow in Porous Materials (3). The mathematical theory of fluid penetration through porous materials and lungs, heat transfer, fluidized beds, non-stationary flows, and double continua. Prerequisite: EML 5709.

EML 6750 Multiphase Suspension Flow (3). Definition of multiphase flow, experimental observation, mathematical modeling of multiphase systems, measurement techniques, suspension boundary layer flow, and fluidization techniques. Prerequisite: Permission of the instructor.

EML 6805 Advanced Design of Robots (3). Kinematic analysis of mechanisms and robot arms, geometric configurations, analytical and numerical methods in kinematics. Prerequisites: EML 3222, EML 3262 and EML 4501.

EML 6908 Independent Studies (1-3). Individual research studies available for qualified graduate students. The work is to be performed under the supervision of an advisor. A report is to be submitted. Students may register for 1 to 3 credits per semester. Prerequisite: Advisor's permission.

EML 6910 Supervised Research (1-6). Graduate level research carried out under the supervision of a faculty member.

EML 6935 Graduate Seminar (1). Different problems in Mechanical Engineering and results of ongoing research will be presented and discussed by invited experts. The seminar will expose the students to advances in existing and emerging areas of research. Prerequisite: Graduate standing.

EML 6971 Masters Thesis (1-6). Masters thesis in any advanced topic, a report is to be submitted and an oral presentation is to be made. Students may register for one to six credits per semester. Total of six credits to be earned for the Master's Degree. Prerequisite: Advisor's permission.

EML 7728 Mechanics of Vortex and Separated Flows (3). Prediction of drag and lift forces acting upon a body moving in fluid or gas for large Reynolds' numbers using numerical experiments with vortex and/or separated flows. Prerequisites: EML 6712, EGM 6422, and EML 6714.

EML 7837 Boundary Value Problems in Engineering (3). Analytical methods and skills for closed-form solutions of boundary value problem of mathematical physics and mechanics for engineering applications based on Riemann theory. Prerequisites: MAP 5407, MAA 4402, or Permission of the instructor.

EML 7979 Dissertation (3-12). Doctoral research leading to Ph.D. Mechanical engineering dissertation. Prerequisite: permission of advisor.

Construction Management

John M. Dye, *Acting Chairperson*
 Syed M. Ahmed, *Assistant Professor*
 Amaury A. Caballero, P.E., *Assistant Professor*
 Kenneth H. Carpenter, *Associate Professor*
 Bhaskar Chaudhari, P.E., *Professor*
 Eugene D. Farmer, A.I.A., *Associate Professor*
 Jose D. Mitrani, P.E., *Associate Professor*
 Zeljko M. Torbica, *Assistant Professor*

Master of Science in Construction Management

The masters degree is rapidly becoming the entry level requirement for middle and upper level managerial positions in the construction industry. The primary goal of this program is to provide the knowledge and advanced skills essential for success in these positions. The program is flexible enough to accommodate graduates from other disciplines who may lack an undergraduate background in construction management.

Students who hold four year undergraduate degrees in construction management may complete the masters degree in one academic year as full-time students. Equivalent degree related fields would include studies in construction drawings, construction materials and methods, construction accounting and finance, economic planning, structures, sitework, legal aspects of construction, cost estimating, construction scheduling and business management/finance. Students with deficiencies in these fields may need longer residence for the masters degree, as they will be required to take specified basic courses.

Admission Application

Students desiring to enter the Construction Management graduate program must formally apply to the University for acceptance. See catalog for graduate application instructions.

Admission Requirements

In order to be admitted, applicants should hold a Bachelor's Degree in Construction, Construction Management, Architecture, Engineering, Business or equivalent related fields. Students with baccalaureate degrees in other fields may be accepted with the understanding that they will be required to take specified basic courses

to provide an adequate background for more advanced courses. In addition, applicants must meet one of the two following criteria:

1. Must have earned a minimum grade point average (GPA.) of 3.0 in the upper division course work related to their undergraduate degree, or,
2. Must have obtained a combined score of at least 1000 on the verbal and quantitative portions only of the Graduate Record Examination (GRE) or a minimum score of 500 on the Graduate Management Admissions Test (GMAT), and have earned a minimum grade point average of 2.0 in the upper division course work related to their undergraduate degree.

GRE or GMAT

All graduate students, regardless of undergraduate GPA, are required by the University to take the GRE or the GMAT. Students that did not take the GRE or the GMAT for admission into the program must take either one no later than the beginning of the second semester into their master's work.

TOEFL

In addition to the above criteria, foreign students must take the TOEFL (Test of English as a Foreign Language) exam and obtain a score of 550 or better.

Curriculum

Students seeking to obtain a Master of Science Degree in Construction Management have a choice of either a thesis or a non-thesis option. The 36 semester hour thesis option consists of a minimum of 30 semester hours of course work and up to six semester hours of thesis. The non-thesis option consists of 36 semester hours of course work and may include up to six semester hours of independent studies. A student shall not register for masters thesis without first having received the approval from his/her advisor, his/her supervisory committee, and the Chairperson of the Department. A student may not register for independent studies without first having received the approval of his/her advisor, and the Chairperson of the Department.

Course Requirements

Graduate credit is awarded for courses numbered 5000 and above. The work in the major field must be in courses numbered 5000 or above. For work outside the major, courses numbered 3000 or above may be taken provided they are part of a plan of study

approved by the student's supervisory committee or the Department Graduate Committee, whichever is applicable, and prior approval is obtained from the Chairperson of the Department. Approval must be obtained in writing prior to the student registering for such a course.

Students with deficiencies in the areas designated as equivalent related fields will be required to take 3000 and 4000 level courses in Construction Management in order to provide the proper foundation for advanced courses. Students required to take these prerequisite courses are advised to register them for the 'P' or 'F'(Pass or Fail) grade option and shall take them until they complete them with a grade of "P." (For graduate students taking undergraduate pre-requisite courses a "P" grade shall be considered to be equivalent to a minimum grade of "C" or better. All grades other than "P" or "F" grades (regardless of course level) will be counted when calculating the student's graduate grade point average.

The program of course work for a masters degree must be approved by the student's advisor, supervisory committee (if thesis option), and Department Chairperson. No more than six credits from a previous masters degree program may be applied toward a second masters degree. These credits are applied only with the written approval of the Department Chairperson and the Dean of the College of Engineering.

Transfer of Credit

Only graduate (5000 - 7999) level work to the extent of two courses, totaling not more than six semester hours, earned with a grade of 'B' or better may be transferred from another institution, or from postbaccalaureate work at the University. Credits transferred from other universities may be applied toward meeting the degree requirements but the grades earned will not be computed in the student's grade point average. Acceptance of transfer of credit requires approval of the student's advisor, supervisory committee (if thesis option) and the Department Chairperson. Petitions for transfer of credit for a masters degree should be made during the student's first term of enrollment in the masters program. Nonresident or extension work taken at another institution may not be transferred to Florida International University for graduate credit. No courses taken by correspondence or as part of another

degree may be used toward a graduate degree.

Supervisory Committee

Students that choose the thesis option should request the appointment of a supervisory committee as soon as possible after admission into the program, but in no case later than the second semester of graduate study. Supervisory committees for graduate degree programs are nominated by the student's selected graduate advisor and approved by the Department Chairperson. The student's proposed plan of study must be approved, in writing, by the student's graduate advisor, the supervisory committee and the Department Chairperson.

Masters Thesis

A student choosing the thesis option must, as part of his/her plan of study, prepare a written proposal of the thesis work planned for presentation to his/her graduate advisor, supervisory committee, and the Department Chairperson. This proposal must adhere to all University and Department regulations concerning format and content. Once this proposal is approved, in writing, by the student's graduate advisor, his/her supervisory committee, and the Department Chairperson, the student will be permitted to register for masters thesis.

Examination

A final comprehensive examination is required for thesis masters candidates and may be required for non-thesis masters candidates. A passing grade must be obtained in order to qualify for graduation. This examination will cover at least the candidate's field of concentration and may include any other topics of general construction knowledge. For a candidate who elected the thesis option, the examination will be administered by his/her supervisory committee. For a candidate who elected the non-thesis option, the examination will be administered by an examination committee comprised of three-department faculty appointed by the Department Chairperson. The final comprehensive examination may be waived at the option of the Department Chairperson for candidates selecting the non-thesis, non-project, coursework only option. Candidates desiring a waiver must petition their request no later than the second week of their last semester prior to graduating.

Time Limitation

All work, including transferred credit, counted toward the masters degree must be completed during the seven years immediately preceding the date on which the degree is awarded.

Special Student

Students wishing to enroll in courses during the application process may do so as a special student. Students must consult an advisor for approval and complete a special student enrollment waiver. Without this waiver and advisor approval, there is no guarantee that the courses taken will be accepted for graduation. No more than 15 semester credits of work taken as a special student can be applied towards graduation. Students taking courses under the special student designation should consult other sections of this catalog for pertinent regulations covering the special student status.

General Regulations

Normal Loads

Students taking a minimum of 9 semester credit hours per semester are considered full time students at the graduate level. Students taking under 9 hours are considered part time and should be aware that certain university privileges and benefits may not be applicable to part time students. Special exceptions may be made, at the option of the Department, in the case of students with a grade point average of 3.5 or greater, wishing to take over 15 semester credit hours. This requires the approval of both the Chairperson of the Department and the Dean of the College of Engineering.

Grades

The Department of Construction Management requires a minimum grade point average of 3.0 in all courses taken towards a masters degree. The minimum acceptable grade for any work attempted as a graduate student is a "C." Students required to take 3000 and 4000 level prerequisite courses shall take them until they complete them with a grade of "P" or better (or "C" or better). All grades other than "P" or "F" grades (regardless of course level) will be counted when calculating the student's graduate grade point average.

Grade of Incomplete

A grade of "I" (Incomplete) may be granted, at the option of the Instructor, to a student who, due to serious, documented, and verifiable extenuating

circumstances beyond his/her control is unable to complete the work required to obtain a grade for a course. A student granted a grade of "I" must complete the work deemed necessary by the instructor to complete the course no later than two semesters after the grade was assigned to the student, or the grade shall automatically revert to a grade of "F" (failing grade).

Credit By Examination

The Department does not generally offer credit by examination graduate credit. A student with outstanding, exceptional and documented skills in a particular subject as well as an outstanding academic record may request credit by examination, and it is the option of the Department Faculty and the Department Chairperson whether to grant the request.

Credit For Non-College Learning

The Department does not award credit for credit for non-college learning (life work experience).

Student Work

The Department reserves the right to retain any and all student work for the purposes of record, exhibition or instruction.

Normal Academic Progress

The student will have maintained normal academic progress when the student earns a minimum grade point average of 3.0 for all graduate work attempted.

Course Sequence and Prerequisites

It is the student's responsibility, not the advisor's, to ascertain that required prerequisites have been taken and passed prior to registering for a course. Failure to comply with pre-requisite requirements may result in the student being dropped from a class.

Probation or Suspension

Students who do not make satisfactory academic progress may be excluded from further registration.

Class Attendance

Class attendance may be required and may be used for grade determination at the option of the instructor.

Graduation

In order to be eligible to graduate the student must have successfully completed his/her plan of study as established with the student's graduate advisor, his/her supervisory committee (if applicable), and the Department

Chairperson. This includes completion of all applicable graduate course work with an overall minimum grade point average of 3.0. A student choosing the thesis option must also have submitted a complete masters thesis, whose format, content, and presentation must be acceptable to and approved by his/her graduate advisor, supervisory committee, and Department Chairperson. Students must additionally have successfully passed his/her final examination if one is required. (See Examination, above).

Students should contact an advisor at least one semester prior to their projected graduation and request a review of his or her file. At the start of the final semester the student is required to complete an Application for Graduation, available from the Department. (See catalog for additional information on graduation procedures and scheduling.) If for any reason a student fails to graduate in the semester after applying for graduation, the student must reapply for graduation.

It is the student's responsibility, not his/her advisor's responsibility, to ascertain that all requirements for graduation, as stated in the University Catalog and in the Department Program sheets, have been met.

Core Curriculum

Required of students lacking appropriate and acknowledged (by advisor) course work in the topics below. Students required to take a core course will register for 3 credits of which 2 will count towards the 36 credits needed to complete the degree. Maximum number of core credits applicable towards degree: 12. Students with prior specific course work in these areas may not take these courses for credit towards degree.

BCN 5618	Fundamentals of Construction Estimating	3
BCN 5645	Construction Economic Analysis	3
BCN 5766	Codes and Regulations	3
BCN 5728	Principles of Construction Scheduling	3
BCN 5746	Construction Legal Environment	3
BCN 5406	Principle of Building Structures for Construction Management	3

Construction Management Electives

Balance of 36 credits to be taken from list below. Nine credits must be

selected from courses marked with an asterisk (*). Thesis students may take up to 6 credits of BCN 6971, and all students may take up to 6 credits of BCN 5905 (see note below).

BCN 5022	Housing for Developing Countries	3
*BCN 5626	Construction Cost Analysis & Control	3
BCN 5706	Interdisciplinary Aspects of Housing	3
*BCN 5716	Productivity in Construction	3
BCN 5735	Hazardous Materials & Waste in Construction	3
*BCN 5755	Construction Financial Management	3
*BCN 5771	Management & Marketing of Const. Services	3
BCN 5772	Management of Construction Organizations	3
BCN 5784	Construction Information Services ¹	3
BCN 5905	Directed Independent Studies ¹	3-6
BCN 5906	Special Topics	3-6
BCN 6473	Systems Approach for Housing Planning	3
*BCN 6642	Value Engineering in Construction	3
BCN 6775	Decision & Risk Analysis in Construction	3
*BCN 6785	Advanced Estimating and Bidding Strategy	3
BCN 6788	Artificial Intelligence in Construction Management	3
BCN 6916	Developments in Construction Technologies	3
BCN 6935	Graduate Seminar	3
BCN 6971	Thesis ¹	3-6

¹Note: A student shall not register for BCN 5905 or BCN 6971, without the approval of his/her advisor, and the Department Chairperson.

Course Descriptions

Definition of Prefixes

BCN-Building Construction

Student programs of study in the graduate level program are carefully designed and sequenced following consultation with a graduate faculty advisor. Appropriate prerequisite course work is assigned on the basis of individual needs.

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.

BCN 5406 Principles of Building Structures for Construction Management (3). 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. Core curriculum course. See discussion, above.

BCN 5618 Fundamentals of Construction Estimating (3). 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. Core curriculum course. See discussion, above.

BCN 5622 Advance Planning and Simulation for Construction (3). The application of advanced planning, scheduling, and simulation techniques and concepts to construction processes and operations.

BCN 5626 Construction Cost Analysis and Control (3). Description of different types of estimating techniques in relation to different stages in a construction project. Productivity analysis, measurement of progress, and techniques of cost control are covered.

BCN 5645 Construction Economic Analysis (3). Nature of construction costs, funding sources and arrangements, capital requirements, bonding, insurance, risk and contingency evaluation, general office operations, and bidding procedures. Core curriculum course. See discussion, above.

BCN 5706 Interdisciplinary Aspects of Housing (3). Recognition and definition of those factors which affect the planning, financing, and construction of housing projects. The operations and responsibilities of a multidisciplinary team dealing with decision process. This course takes a critical look at the housing delivery system to include: how the housing industry operates, various technologies prevalent in housing construction, and constraints to housing. The course will also look at the future, examining problems and forces that will shape opportunities.

BCN 5716 Productivity in Construction (3). An in-depth study of common

issues relating to productivity improvements in construction.

BCN 5728 Principles of Construction Scheduling (3). The application of the Critical Path Method and Program Evaluation Review Technique to construction planning, scheduling vs. actual job expenditures. Cost forecasting development of unit prices from field data. Laboratory is included which consists of computer applications. Core curriculum course. See discussion, above.

BCN 5735 Hazardous Materials and Waste in construction (3). Discussion of the common hazardous materials and waste regulations found in construction activities.

BCN 5741 Construction Claims (3). Construction claims administration and avoidance. Covers the importance of construction contract errors, unforeseen and changed conditions, disruptions, acceleration, termination, and proving of claims.

BCN 5746 Construction Legal Environment (3). Legal and business aspects of engineering contracts and specifications in the construction industry. Analysis, study of precedents, and application of contract clauses, including changes, changed conditions, termination, disputes, payments, risk and insurance, inspection, liquidated damages, and technical requirements. Core curriculum course. See discussion, above.

BCN 5747 Construction Law Case Studies (3). Case study and analysis of reported appellate decisions on common construction law issues; licensing; bid disputes; contract issues; construction lien law; surety problems; and unresolved claims.

BCN 5755 Construction Financial Management (3). Money management in construction operations: financing, funding, sources of money, cash flow, disbursement, liability and bonding, cost and managerial accounting, and profit analysis.

BCN 5766 Codes and Regulations (3). Study of building codes required by local, county, and state levels and their relation to quality control. Core curriculum course. See discussion, above.

BCN 5771 Management and Marketing of Construction Services (3). Human effectiveness in marketing construction management services in the public and private sectors.

BCN 5772 Management of Construction Organizations (3). This course studies the management of a construction company. Topics included are: company organization, incorporation structures, policies and procedures, finance, accounting, information modeling, bidding strategies, and operation.

BCN 5774 Topics in International Construction (3). Introduction to procurement, financing and management of international construction projects with emphasis on international economics, contracts, trade agreements and specifications.

BCN 5784 Construction Information Systems (3). The application of information management techniques, including computer hardware and software systems, to the analysis and solution of typical problems in the practice of construction management.

BCN 5905 Directed Independent Studies (VAR). Individual studies under supervision of faculty, tutor, or advisor. Requires prior approval of advisor and Chairperson.

BCN 5906 Special Topics (VAR). Intensive study for small group of students in a particular topic, or a limited number of topics not otherwise offered in the curriculum.

BCN 6473 Systems Approach for Housing Planning (3). Discussions of basic concepts of systems analysis and systems approach to the field of housing planning. The advantage of systems approach. Case studies.

BCN 6642 Value Engineering in Construction (3). Relationship of costs to time and life cycle of construction projects, and methods to improve the economic value of construction projects.

BCN 6775 Decision and Risk Analysis in Construction (3). Techniques of decision analysis for the medium to top level management personnel in the construction industry. Typical construction related problems that involve risk and uncertainty are studied.

BCN 6785 Advanced Estimating and Bidding Strategy (3). Application of computer software to rigorous exercises in construction estimating. Cost information related to construction with applications in current practice.

BCN 6788 Artificial Intelligence Applications in Construction Man-

agement (3). The course presents a study of the concepts, techniques, and applications of AI technology in the construction management domain.

BCN 6910 Supervised Research (1-6). Graduate level research carried out under the supervision of a faculty member.

BCN 6916 Developments in Construction Technologies (3). Study of advanced field techniques and emerging uses worldwide. Information flow and creativity are highlighted as crucial elements which stimulate new developments. This course prepares the students to understand and deal with concepts of change. Prerequisite: BCN 5716.

BCN 6935 Seminar on Construction Management (3). Advanced study of problems, trends, and issues in a time of rapid change in building and management technology. Topics selected or developed by class.

BCN 6971 Thesis (3-6). Students develop a thesis under the direction of a senior faculty mentor, and their supervisory committee, and advance and defend their propositions before an audience of peers, scholars, and their supervisory committee. Requires approval of advisor, supervisory committee, and Department Chairperson.

College of Engineering

Interim Dean **Richard K. Irey**

Associate Dean for

Academic Programs **James R. Story**

Associate Dean for

Research and Graduate

Studies and Computer

Services

Kia Makki

Assistant Dean **Lourdes A. Meneses**

Chairperson, Civil and

Environmental

Engineering

L. David Shen

Acting Chairperson, Construction

Management

John M. Dye

Acting Chairperson, Electrical

and Computer

Engineering

Kang Yen

Chairperson,

Industrial and

Systems

Engineering

Shih-Ming Lee

Acting Chairperson,

Mechanical

Engineering

Norman Munroe

Director, Center for Advanced

Technology and

Education

Malek Adjouadi

Director, Cardiovascular

Engineering

Center

James E. Moore, Jr.

Director, Future Aerospace

Science and Technology

Center for

Cryoelectronics

Grover Larkins

Director, Lehman Center

for Transportation

Research

L. David Shen

Director, Manufacturing

Research Center

Chin-Sheng Chen

Director, Telecommunications

and Information Technology

Institute

Niki Pissinou

Director,

Water Research

Center

Berrin Tansel

Faculty

Adjouadi, Malek, Ph.D. (University of

Florida), Associate Professor,

Electrical and Computer

Engineering

Ahmad, Irtishad, Ph.D., P.E.

(University of Cincinnati), Associate

Professor, Civil and Environmental

Engineering

Ahmed, Syed M., Ph.D. (Georgia

Tech University), Assistant

Professor, Construction Manage-

ment

Andrian, Jean, Ph.D., P.E.

(University of Florida), Associate

Professor, and Graduate Advisor

Electrical and Computer

Engineering

Babji, Tadeusz, Ph.D. (Technical

University, Wroclaw, Poland),

Professor, Electrical and Computer

Engineering

Barreto, Armando B., Ph.D.

(University of Florida), Associate

Professor, Electrical and Computer

Engineering

Caballero, Amaury A., Ph.D., P.E.

(Energy Institute of Moscow),

Assistant Professor, Construction

Management

Candocia, Frank, Ph.D. (University of

Florida), Assistant Professor,

Electrical and Computer

Engineering

Cao, Yiding, Ph.D. (University of

Dayton), Associate Professor,

Mechanical Engineering

Carpenter, Kenneth H., Ed.D. (West

Virginia University), Associate

Professor, Construction

Management

Centeno, Martha, Ph.D. (Texas A&M

University), Associate Professor,

Industrial and Systems Engineering

Chaudhari, Bhaskar S., Ph.D., P.E.

(University of Pennsylvania),

Professor, Construction

Management

Chen, Chin Sheng, Ph.D. (Virginia

Polytechnic Institute and State

University), Professor, Industrial

and Systems Engineering

Chow, Joe, Ph.D. (Carnegie Mellon

University), Associate Professor,

Industrial and Systems Engineering

Crumpler, Eric, Ph.D. (Northwestern

University), Assistant Professor,

Mechanical Engineering

Dye, John M., S.M. C.E.

(Massachusetts Institute of

Technology), Acting Chairperson,

Construction Management

Farmer, Eugene D., M.Arch., R.A.

A.I.A. (University of Illinois),

Associate Professor, Construction

Management

Frank, Andreas O., Ph.D. (University

of Texas, Arlington), Research

Faculty, Cardiovascular

Engineering Center

Franquiz, Juan, Ph.D. (University of

Florida), Assistant Professor,

Biomedical Engineering

Fuentes, Hector R., Ph.D., P.E.,

D.E.E. (Vanderbilt University),

Professor, Civil and Environmental

Engineering

Gan, Albert, Assistant Professor,

Civil and Environmental

Engineering

Giachetti, Ronald E., Ph.D. (North

Carolina State University), Assistant

Professor, Industrial and Systems

Engineering

Gilbar, Thomas, M.S. (Florida

International University),

Instructor and Undergraduate

Advisor, Electrical and Computer

Engineering

Gloster, Arthur S., Ed.D. (Virginia

Polytechnic Institute & State

University), Professor, Industrial

and Systems Engineering

Gomez, Nestor, Ph.D. (Carnegie

Mellon University), Assistant

Professor, Civil and Environmental

Engineering

Hamad, Esam, Ph.D. (University of

Illinois), Associate Professor,

Mechanical Engineering

Heimer, Malcolm L., Ph.D. (Penn

State University), Associate

Professor, Electrical and

Computer Engineering

Hopkins, Gordon R., Ph.D.

(University of Alabama),

Professor, Mechanical Engineering

and Industrial and Systems

Engineering

Irey, Richard K., Ph.D., P.E. (Purdue

University), Interim Dean and

Professor, Mechanical Engineering

Jolibois, Sylvan C., Jr., Ph.D.

(University of California-Berkeley),

Associate Professor, Civil and

Environmental Engineering

Jones, W. Kinzy, Ph.D.

(Massachusetts Institute of

Technology), Professor, Mechanical

Engineering/Manufacturing

Research Center

Kengskool, Khokiat, Ph.D.

(University of Missouri), Associate

Professor, Industrial and Systems

Engineering

Laha, Shoali, Ph.D., P.E., (Carnegie

Mellon University), Assistant

Professor, Civil and Environmental

Engineering; Drinking Water

Research Center

Larkins, Grover L., Ph.D. (Case

Western Reserve University),

Associate Professor, Electrical and

Computer Engineering

Lee, Shih-Ming, Ph.D., P.E. (Iowa

State University), Associate

Professor and Chairperson,

Industrial and Systems Engineering

Levy, Cesar, Ph.D. (Stanford

University), Professor, Mechanical

Engineering

Linn, Richard, Ph.D. (Pennsylvania

State University), Associate

Professor, Industrial and Systems

Engineering

Liu, Chunhua, Ph.D., (Tongji

University), Research Associate,

Civil and Environmental

Engineering

Makki, Kia, Ph.D. (University of

California at Davis), Associate

Dean, College of Engineering;

- Professor, Industrial and Systems Engineering*
- Martinez, Sergio, D.Sc.** (*Columbia University*), *Instructor, Industrial and Systems Engineering*
- McGoron, Anthony J., Ph.D.** (*Louisiana Tech University*), *Assistant Professor, Mechanical Engineering*
- Meneses, Lourdes, M.S.** (*Florida International University*), *Assistant Dean*
- Mitrani, Jose D., M.E., Engr., P.E.**, (*University of Florida*), *Associate Professor, Construction Management*
- Mohammed, Osama A., Ph.D.** (*Virginia Polytech.*), *Professor, Electrical and Computer Engineering*
- Moore, Jr., James E., Ph.D.** (*Georgia Institute of Technology*), *Associate Professor, Mechanical Engineering and Director, Cardiovascular Engineering Center*
- Munroe, Norman, Ph.D.** (*Columbia University*), *Associate Professor and Acting Chairperson, Mechanical Engineering*
- Pascual, Beth, M.S., E.I.** (*Florida International University*), *Instructor/Advisor, Civil and Environmental Engineering*
- Pissinou, Niki, Ph.D.** (*University of Southern California*), *Professor, Electrical and Computer Engineering; Director, Telecommunications and Information Technology Institute*
- Prieto-Portar, Luis A., Ph.D., P.E.** (*Princeton University*), *Professor, Civil and Environmental Engineering*
- Pujol, Luis, Ph.D.** (*Lehigh University*), *Instructor, Mechanical Engineering*
- Resnick, Marc, Ph.D.** (*University of Michigan*), *Associate Professor, Industrial and Systems Engineering*
- Rincon, Diana, Ph.D.** (*University of Michigan*), *Assistant Professor, Mechanical Engineering*
- Rogge, Wolfgang F., Ph.D.** (*California Institute of Technology*), *Associate Professor, Civil and Environmental Engineering*
- Roig, Gustavo, A., Ph.D.** (*University of Florida*), *Associate Professor, Electrical and Computer Engineering*
- Sanchez, Mario, M.S.** (*Florida International University*), *Instructor/Counselor/Advisor, Industrial & Systems Manufacturing Research Center*
- Schenck, Carmen, M.S.** (*Florida International University*), *Instructor/Counselor/Advisor, Mechanical Engineering*
- Schmidt, Pierre, E., Ph.D.** (*Pennsylvania State University*), *Professor, Electrical and Computer Engineering*
- Schoephoerster, Richard, Ph.D.** (*University of Iowa*), *Associate Professor, Mechanical Engineering; Director, Biomedical Engineering Institute*
- Shen, Lon-Li. David, Ph.D., P.E., T.E.** (*Clemson University*), *Chairperson and Professor, Civil and Environmental Engineering, Director, LCTR*
- Story, James R., Ph.D.** (*University of Alabama*), *Associate Dean and Professor, Electrical and Computer Engineering*
- Tang, Walter Z., Ph.D., P.E.** (*University of Delaware*), *Associate Professor, Civil and Environmental Engineering*
- Tansel, Berrin, Ph.D., P.E.** (*University of Wisconsin-Madison*), *Associate Professor, Civil and Environmental Engineering, Director, Water Research Center*
- Tansel, Ibrahim, Ph.D.** (*University of Wisconsin-Madison*), *Associate Professor, Mechanical Engineering*
- Tao, Yong Xin, Ph.D.** (*University of Michigan*), *Associate Professor, Mechanical Engineering*
- Thompson, LeRoy E., Ph.D., P.E.** (*Rice University*), *Professor Emeritus, Civil and Environmental Engineering*
- Torbica, Zeljko M., Ph.D.** (*University of Florida*), *Assistant Professor of Construction Management*
- Tosunoglu, Sabri, Ph.D.** (*University of Florida*), *Associate Professor, Mechanical Engineering*
- Ural, Oktay, Ph.D., P.E.** (*North Carolina State University*), *Professor, Civil and Environmental Engineering*
- Urban, Frank K., Ph.D.** (*University of Florida*), *Associate Professor, Electrical and Computer Engineering*
- Wang, Ton-Lo, Ph.D., P.E.** (*Illinois Institute of Technology*), *Professor, Civil and Environmental Engineering*
- Wu, Kuang-Hsi, Ph.D., P.E.** (*University of Illinois*), *Professor, Mechanical Engineering*
- Wannava, Subbarao V., Ph.D., P.E.** (*Andhra University*), *Professor, Electrical and Computer Engineering*
- Yen, Kang K., Ph.D., P.E.** (*Vanderbilt University*), *Professor and Acting Chairperson, Electrical and Computer Engineering*
- Zhao, Fang, Ph.D., P.E.** (*Carnegie Mellon University*), *Associate Professor, Civil and Environmental Engineering*

College of Health and Urban Affairs

College of Health and Urban Affairs

<i>Dean</i>	Ronald M. Berkman
<i>Associate Dean</i>	Evelyn B. Enrione
<i>Associate Dean</i>	David Bergwall
<i>Assistant Dean</i>	Diana Correa
<i>Assistant Dean</i>	Welker Mitchell
<i>Assistant Dean</i>	Marta M. Medina
<i>Assistant Dean</i>	Lourdes Rassi
<i>Assistant Dean</i>	Harlan Sands

Directors, Chairpersons, and

Coordinators:

School of Health **Carol DeLong Pyles**
(Interim)

Dietetics and Nutrition **Michele Ciccazzo**
Health Information Management **Odalys Martinez,**
(Acting)

Occupational Therapy **Susan Kaplan**

Physical Therapy **Leonard Elbaum**
Public Health **H. Virginia McCoy**

Communication and Sciences Disorders **Lemmietta McNeilly**

School of Nursing **Divina Grossman**

School of Policy Management **Gloria Deckard**
(Interim)

Criminal Justice **Suman Kakar**

Health Services Administration **Vandon E. White**
Public

Administration **Donald Klingner**
School of Social Work **Ray Thomlison**

The College of Health and Urban Affairs was created by the Board of Regents in the Spring of 2000 when the former College of Urban and Public Affairs and the College of Health Sciences were merged. In support of the University's mission as a major urban research institution the College offers programs of professional study in selected health professions and that focus on critical management issues in urban environments.

The College is composed of four schools: School of Health, School of Nursing, School of Policy and Management and the School of Social Work. The College offers baccalaureate degrees in Dietetics and Nutrition, Health Information Management, Occupational Therapy, Nursing, Criminal Justice, Health Services Administration, Public Administration and Social Work. Masters Degrees are offered in Dietetics and Nutrition,

Occupational Therapy, Physical Therapy, Public Health, Nursing, Criminal Justice, Health Services Administration, Public Administration, and Social Work. The Doctor of Philosophy is offered in Dietetics and Nutrition, Public Administration and Social Welfare.

In addition, the College of Health and Urban Affairs is home to seven centers and institutes: The Center for the Administration of Justice; Institute of Government; Institute for Children and Families at Risk; HRS/Children, Youth and Families Professional Development Center; the Institute for Public Management and Community Service, The Life Course and Health Research Center; and the National Policy and Resource Center on Nutrition and Aging. These centers and institutes provide research and service opportunities to students while maintaining an agenda of top level research on issues critical to our community and society. Information on these centers is contained in this catalog ("General Information—Centers and Institutes").

Students interested in the academic programs offered by the College of Health and Urban Affairs are urged to contact an advisor for guidance on admissions requirements, curriculum and career planning. Please call the School of Health at (305) 348-3446, School of Nursing at (305) 919-5915, School of Policy and Management at (305) 348-5890 or School of Social Work at (305) 348-5880. The Dean's Office may be reached at (305) 348-5840.

Changes to the Curriculum Requirements

The programs, policies, and requirements and regulations listed 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. This is especially true for the programs that are subject to national accreditation requirements (the majority of the degree programs in the College.) University policy changes in curriculum may be made without advance notice.

Generally, the College of Health and Urban Affairs makes every effort to minimize the impact of curriculum

changes on currently enrolled students by stipulating that students complete the requirements of their degree program in effect at the time of admission or readmission to the program. In the event that this is not possible due to accreditation standards or the deletion of courses, students may be required to complete alternative degree requirements in order to graduate. All changes in a student's curriculum requirements must be noted in the student's official file, maintained by the appropriate School. Students should review their file to ensure that all documentation of changes to their approved program of study are noted.

School of Health

School of Health

Director, **Carol DeLong Pyles**

Dietetics and

Nutrition **Michele Ciccazzo**

Health Information

Management **Odalys Martinez,**
(Acting)

Occupational

Therapy **Susan Kaplan**

Physical

Therapy **Leonard Elbaum**

Public Health **H. Virginia McCoy**

Communication

Sciences and
Disorders **Lemmietta McNeilly**

The School of Health offers programs of professional study in select health professions. The academic departments of the School offer courses of study leading to a baccalaureate degree in Dietetics and Nutrition, Health Information Management, Occupational Therapy and Health Sciences. Master's degrees are offered in Dietetics and Nutrition, Occupational Therapy, Physical Therapy, Public Health, and Speech Language Pathology. A Doctor of Philosophy is offered by Dietetics and Nutrition. All degree programs are appropriately accredited by their respective professional accrediting bodies. Speech Language Pathology, a new program, was awarded candidacy Fall 2000.

Applicants must submit an Application for Admission to the University and must follow regular University procedures. Applicants must be eligible for admission to the University before being admitted to any degree program. Because the school's programs have different requirements, students interested in admission to any program in the School should contact the department for admission requirements.

The goals of the School of Health are to:

1. Prepare health professionals at the undergraduate and graduate levels.
2. Promote close articulation between the appropriate programs and the community clinical sites for the experiential learning of our students.
3. Increase the knowledge base of the health disciplines through research.
4. Provide service to the health professions at the local, regional, national and/or international levels.

Academic Support Services

The Coordinator for Academic and Student Support Services is responsible

for coordinating graduate academic advising and student service activities for the School of Health. The Office of Student Support Services provides students with information about educational opportunities such as scholarships, tuition waivers, and campus resources; and serves as a liaison between the School of Health and university-wide student support services and facilitates registration and graduation procedures.

A student who has been accepted into a graduate degree program in the School must consult an advisor prior to initial course enrollment. An advisor may be assigned by contacting the Chairperson of the Department. Continued contact (at least once per semester) with an advisor is encouraged to insure proper selection of courses to fulfill graduation requirements.

Note: The programs, policies, requirements and regulations listed 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 may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

HSC 5666 Information and Communication for Health Professionals (3). Information and communication technology introduces technology and practical computer applications for today's health care professional. This on-line course uses a web-based format. Prerequisite: Basic computer experience.

HSC 5905 Health Independent Study (3). Faculty supervised project in health-related topics in association with the student's special interests.

Dietetics and Nutrition

Michele Ciccazzo, *Associate*

Professor, Chairperson

Marianna Baum, *Professor*

Katharine R. Curry, *Professor*

Emeritus

Victoria Hammer Castellanos,

Assistant Professor, and

Director, Didactic Program

Zisca Dixon, *Associate Professor, and*

Director, Coordinated Program

Penelope S. Easton, *Professor*

Emeritus

Evelyn B. Enrione, *Associate*

Professor and Associate Dean

Valerie George, *Assistant Professor*

Susan P. Himburg, *Professor*

Fatma Huffman, *Professor*

Amy Jaffe, *Clinical Instructor,*

Director Dietetic Internship

Marcia Magnus, *Associate Professor*

Jorge Monserrate, *Clinical Assistant*

Professor

Dian Weddle, *Associate Professor*

Nancy S. Wellman, *Professor*

The Department offers graduate programs leading to a Master of Science or a Doctor of Philosophy in Dietetics and Nutrition. The M.S. program is designed to meet the needs of professional practitioners as well as students with undergraduate degrees in related fields. There is an opportunity for students to complete the requirements to sit for the National Registration Exam for Dietitians by applying to the Dietetic Internship in conjunction with the Master's program. In some cases prerequisites must be met before enrolling in graduate courses. Interested students should contact the department prior to applying for admission.

Minimum entrance requirements under current Board of Regents policy must be met. For the M.S. this includes a combined score of 1000 on the Verbal and Quantitative Aptitude Test of the Graduate Record Examination or at least a 'B' (3.0 on a 4.0 scale) average in all upper division work. For the Ph.D.; an M.S. degree, 3.0 GPA and 1000 GRE are required. Application procedures for admission are detailed in the University procedures for admission to graduate study.

Students who are candidates for the Master of Science degree in Dietetics and Nutrition must complete a minimum of 37 semester hours of graduate study including at least 30 hours at this University. All course work must be recent enough to be relevant to the contemporary field of

nutrition. Ph.D. students must complete a minimum of 55 hours after M.S. degree.

The Dietetic Internship (DI) is currently granted accredited status by The Commission on Accreditation/Approval for Dietetics Education of The American Dietetic Association, 216 Jackson Blvd., Chicago, Il. 60606-6995, (312) 899-4870.

The program begins each Fall semester and is completed by the following June. Students have the opportunity for supervised dietetic practice in outstanding health care facilities in South Florida. Enrollment is limited and requires a separate application available from the department. To be eligible, students must have completed an ADA Didactic program and be admitted to the graduate program. (Students must have official committee approval of thesis proposal prior to the application deadline of February 15.)

Students must meet all graduation requirements for the M.S. degree in order to receive the verification statement of Dietetic Internship program completion.

Master of Science in Dietetics and Nutrition

Each student's program will be planned to support his/her career goals through consultation with an assigned faculty advisor. Retention and graduation in the Master's program requires maintenance of a 3.0 GPA.

Course Requirements

Required Core (23)

Research: (14)

DIE 6568	Research Methods in Dietetics	3
DIE 6937	Graduate Seminar in Dietetics (<i>two semesters</i>)	1
DIE 6971	Thesis in Dietetics and Nutrition	6
STA 6166	Statistical Methods in Research	3

Nutrition Core: (9)

Students must take at least three out of five courses. One course must be in macronutrients, one in micronutrients.

HUN 5245	Nutrition and Biochemistry	3
HUN 6307	Carbohydrates and Lipids	3
HUN 6327	Proteins	3
HUN 6335	Functions of Vitamins	3
HUN 6355	Minerals in Human Nutrition	3

Recommended Electives¹: (14)

ANT 6469	Graduate Medical Anthropology	3
DIE 6368	Advanced Techniques in Dietetic Practice	2
DIE 6368L	Advanced Techniques in Dietetic Practice Lab	1
DIE 6929	Specialized Short Course in Dietetics and Nutrition	1
FOS 6236	Food Toxicology and Food Safety	3
HUN 5123	Ethnic Influences on Nutrition and Food Habits	3
HUN 5621	Food, Nutrition and Communication	3
HUN 6248	Sports Nutrition	3
HUN 6249	Nutrition and Physical Function	3
HUN 6254	Drug and Nutrient Interaction	3
HUN 6255	Nutrition and Wellness	3
HUN 6257	Physio/Psychology of Food Intake	3
HUN 6266	Nutritional Assessment	3
HUN 6295	Contemporary Issues in Food and Nutrition	3
HUN 6435	Nutrition and Aging	3
HUN 6522	Public Health Nutrition	3

¹Courses that are not listed as recommended electives may be taken as approved by advisor/Program Director.

Doctor of Philosophy in Dietetics and Nutrition

Students' course work will be planned to support the research interests and career goals with the advisor and the dissertation committee. A maintenance of 3.0 GPA in all course work is required

Required Courses

Research (minimum 5 credits)

HUN 6811	Laboratory Research Methods in Dietetics & Nutrition ¹	2
	or	
DIE 6578	Qualitative Research Methods in Dietetics & Nutrition ¹	2
DIE 7566	Research Concept Development in Dietetics & Nutrition ¹	3

¹Prerequisite: STA 6166

DIE 6568

¹Corequisite: STA 6167

Seminar (3 credits)

DIE 6937	Graduate Seminar in Dietetics & Nutrition	1
	(course may be repeated 3 times, minimum)	

General Applied Dietetics & Nutrition (minimum 6 credits)

DIE 6368	Advanced Techniques in Dietetic Practice	2
DIE 6368L	Advanced Techniques in Dietetic Practice Lab	1
HUN 5123	Ethnic Influences on Nutrition and Food Habits	3
HUN 5621	Food Nutrition and Communication	3
HUN 6295	Contemporary Issues in Food & Nutrition	3

Nutrition Science (minimum 6 credits)

HUN 6327	Proteins	3
HUN 6328	Carbohydrates and Lipids	3
HUN 6335	Functions of Vitamins	3
HUN 6355	Minerals in Human Nutrition	3

Dissertation

DIE 7980	Dissertation	12-24
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Collaterals

23-24

With the assistance of a major professor and dissertation committee, a Program of Studies with complementary areas will be developed.

Course Descriptions

Definition of Prefixes

DIE-Dietetics; FOS-Food Science; FSS-Food Service Systems; HUN-Human Nutrition
 F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

DIE 5247 Trends in Therapeutic Nutrition (3). Evaluation and interpretation of current research in dietary care of metabolic diseases. Prerequisite: Diet therapy or approval of the instructor.

DIE 5936 Advanced Practice Seminar (1-3). Designed to provide didactic components in tandem with practice learning experiences in health care institutions. Covers material in clinical dietetics, management, and community nutrition. Utilizes a team approach and will draw on specialists from all areas of dietetics. Corequisites: DIE 5946, DIE 5947, DIE 5948 or Permission of the instructor. (S)

DIE 5946 Advanced Practicum in Community Nutrition (1-6). Pre-planned clinical progression experience in community nutrition. Prerequisite: Permission of the

instructor. DI course does not count towards M.S. degree. (S)

DIE 5947 Advanced Practicum in Dietetic Administration and Management (1-6). Pre-planned clinical experience at the professional level in dietetic administration and management. Prerequisite: Permission of the instructor. DI course does not count towards M.S. degree. (F)

DIE 5948 Advanced Practicum in Clinical Nutrition (1-6). Pre-planned clinical experience at the professional level in clinical therapeutic nutrition. Prerequisite: Permission of the instructor. DI course does not count towards M.S. degree. (F)

DIE 6128 Advanced Management of Dietary Systems (3). Application of management and organizational theory to dietetic systems in health and community institutions.

DIE 6256 Enteral Nutrition (3). The specific indications for enteral feeding are discussed with special emphasis on the unique requirements, and feeding techniques for specific disease states. Prerequisites: Physiology, Biochemistry, DIE 3244 and DIE 4246.

DIE 6257 Parenteral Nutrition (3). Clinical and metabolic advances in the parenteral feeding of the adult patient in relation to specific disease states. Prerequisites: Physiology, Biochemistry.

DIE 6259 Management of Nutrition Services (3). Analysis of interdisciplinary nutrition services delivery with emphasis on management models and theories regarding division of work, quality improvement and productivity, leadership, motivation and planning, organizing, staffing, directing, and controlling.

DIE 6367 Entrepreneurial Dietetics (3). Focus on the dietitian as an owner/partner or top level manager. Emphasizes business management principles as applied to dietetics and nutrition. Prerequisite: DIE 6128 or equivalent.

DIE 6368 Advanced Techniques in Dietetic Practice (2). 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 4435L or equivalent. Corequisite: DIE 6368L. (S, even years)

DIE 6368L Advanced Techniques Dietetic Practice Lab (1). Individual practice in conducting interviews, planning nutritional care, changing nutritional behavior, and providing dietetic consultation. Prerequisite: Permission of the instructor. Corequisite: DIE 6368. (S, even years)

DIE 6438 Dietetic Programs for Post Secondary Settings (3). Review of techniques and materials. Emphasis on preparing documents for accreditation and approval of dietetic programs. Prerequisite: Permission of the instructor.

DIE 6565 Computer Application in Dietetic & Nutrition Research (3). Application of various computer software programs to research problems. Prerequisite: Permission of the instructor.

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. Prerequisites: STA 6166 or permission of the instructor.

DIE 6578 Qualitative Research Methods in Dietetics (3). Application of qualitative research methods including field and case study approaches in interpreting and designing research studies. Introduction to interdisciplinary research. Prerequisite: DIE 6568.

DIE 6906 Readings in Dietetics and Nutrition (1-3). Individual advanced study in a comprehensive overview of dietetics and nutrition or in-depth advanced study of a specialty. Prerequisites: Permission of the instructor and advanced standing in graduate program. (F,S,SS)

DIE 6907 Individual Study in Dietetics (1-3). Intensive individual investigation of a phase of dietetics. Emphasis on recent findings in dietetics and allied disciplines. Prerequisite: Permission of the Instructor. (F,S,SS)

DIE 6915 Supervised Research (1-3). Continuation of thesis research under thesis advisor. Repeatable. Prerequisite: Completion of all other required course work. (F,S,SS)

DIE 6929 Specialized Short Courses in Dietetics and Nutrition (1-3). Intense courses on specialized topics in dietetics and nutrition for the advanced student or professional. Topic based on current nutrition concerns. Prerequisites: Advance graduate standing and Permission of the instructor.

DIE 6935 Special Topics in Dietetics (3). In-depth study of historical, epidemiological, prevention, and treatment aspects of topics related to dietetics. Prerequisites: Competence in topic covered, admission to graduate program.

DIE 6937 Graduate Seminar in Dietetics and Nutrition (1). Presentations by researchers and doctoral students on studies, theories, applications; journal club presentations by students. Two semesters enrollment, M.S. students; three semesters Ph.D. students. (F,S)

DIE 6971 Thesis in Dietetics and Nutrition (1-6). Prerequisites: DIE 6568 or DIE 6578 or HUN 6811, 12 hours of graduate study and permission of Thesis advisor. (F,S,SS)

DIE 7437L Nutrition Counseling Supervision (2). Covers techniques for advising on food choices and providing support for life style changes to meet wellness goals or treat diseases. Prerequisites: DIE 6368 and DIE 6368L.

DIE 7566 Research Concept Development in Dietetics and Nutrition (3). Grant proposal writing for dietetic and nutrition research. Prerequisite: DIE 6568, STA 6166, and STA 6167.

DIE 7980 Dissertation (3-24). Research for doctoral dissertation. Prerequisite: Advancement to candidacy in doctoral program.

FOS 6236 Food Toxicology & Food Safety (3). Discusses food and water borne bacterial, parasitic, and viral infections and intoxication. Examines food additives, and contaminants. Describes toxic food constituents as well as naturally occurring toxicants. Prerequisites: Graduate standing and food science competency.

FSS 6317 Human Resources Management in Nutrition Services (3). Application of human resources theory to nutrition services; raising productivity and service quality. Prerequisite: Advanced management course.

FSS 6367 Operations Analysis in Food Service and Nutrition Care Systems (3). Models and methods of budget and service forecasting related to food service and nutritional care in large and small institutions of short and long term care. Prerequisites: Advanced graduate standing, DIE 6128 or equivalent.

FSS 6535 Computer Assisted Food and Nutritional Services Management (3). Advanced course in computer analysis and utilization for detection and resolution of problems of food service and nutritional care. Prerequisites: Advanced graduate standing, DIE 6128 or equivalent, and computer competency.

FSS 6535L Computer Assisted Food and Nutritional Services Management Lab (1). Laboratory application in computer analyses and utilization in food services and nutrition care. Prerequisite: Advanced Graduate Standing. Corequisite: FSS 6535.

GEY 5006 Foundations in Gerontology for Health Professions (3). Implications for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

HUN 5123 Ethnic Influences on Nutrition and Food Habits (3). Systematic study of food habits of various cultural groups. Emphasis 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 5195 International Nutrition: Problems, Policies, and Planning (3). Advanced study of magnitude, causes and nature of undernutrition in developing countries; emphasis on programs, planning and policies directed toward alleviating hunger. Prerequisite: Permission of the instructor. Recommended for non-majors.

HUN 5245 Nutrition and Biochemistry (3). Advanced study of the relationship of nutrition and biochemistry with emphasis on digestion, absorption, metabolism of nutrients, and determination of norms. Prerequisites: Organic Chemistry and Physiology

HUN 5611 Nutrition Education in the Community (3). 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 the instructor.

HUN 5621 Food, Nutrition and Communication (3). Concepts and techniques for effective professional communication with individuals, groups and other professionals. Emphasis on communication via mass media. Prerequisites: Competency in food and nutrition knowledge.

HUN 6196 Food Economics (3). In-depth study of forces and policies affecting the procurement, preparation and utilization of food in society. Prerequisite: Advanced graduate standing.

HUN 6248 Sports Nutrition (3). The influence of exercise on specific nutrient demands and utilization of nutrients will be examined. Nutritional requirements and interrelationships between nutrition and exercise in the prevention and management of common diseases such as obesity, hypertension, diabetes and cardiovascular disease will also be discussed. Prerequisite: Human Nutrition and Intermediate Physiology. (S, odd years)

HUN 6249 Nutrition and Physical Function (3). Covers food intake as it relates to physical development and physical performance. Emphasis will be on subgroups of the population. Prerequisites: Competence in nutrition and physiology and advanced graduate standing.

HUN 6254 Drug and Nutrient Interaction (3). The interaction of drug and nutrient metabolism in relation to optimum nutrition. Prerequisites: Advanced Nutrition, Biochemistry, Physiology.

HUN 6255 Nutrition in Wellness Program (3). Examination of required factors for successful development, implementation and evaluation of wellness programs and investigation of interrelationships between nutrition/physical activity as means of chronic disease risk reduction. Prerequisite: Advanced Nutrition and Nutrition Education.

HUN 6257 Physio/Psychology of Food Intake (3). Examination of food intake regulation with applications in both research and practice. Prerequisite: Competence in nutrition and physiology

HUN 6266 Nutritional Assessment (3). In-depth study of the methodology and application of nutritional assessment. Prerequisites: Advanced Nutrition, physiology, and biochemistry.

HUN 6295 Contemporary Issues in Food and Nutrition (3). Critical evaluation of current controversies in nutrition and dietetics research. Prerequisite: Advanced Nutrition, Biochemistry, Physiology, Research Methods.

HUN 6307 Carbohydrates and Lipids (3). The biological, physiological and metabolic functions of carbohydrate and lipids as they relate to human nutrition. Prerequisites: Biochemistry, Advanced Nutrition and Physiology.

HUN 6327 Proteins (3). Protein metabolism, physiology and nutrition. Prerequisite: Biochemistry, Advanced Nutrition, and Physiology.

HUN 6335 Functions of Vitamins (3). Integration of chemical, biological and physiological functions of vitamins as related to human nutrition. Prerequisites: Advanced Nutrition, Biochemistry, Physiology. (S, even years)

HUN 6355 Minerals in Human Nutrition (3). The physiological and metabolic functions of selected macro and trace minerals as they relate to nutritional status in humans. Prerequisites: Advanced Nutrition, Biochemistry, Physiology. (S, odd years)

HUN 6435 Nutrition and Aging (3). Changes associated with aging and the impact of nutrition on these changes. Prerequisite: Permission of the instructor. (S, odd years)

HUN 6522 Public Health Nutrition (3). Development and assessment of nutrition programs for the general population throughout the life cycle. Prerequisite: DIE 3317 or equivalent.

HUN 6811 Laboratory Research Methods in Dietetics (2). Laboratory application of research methods in dietetics. Prerequisites: DIE 6568 and consent of instructor.

Medical Laboratory Sciences

In November 1999, the Florida Board of Regents voted to terminate the current baccalaureate and master's program in Medical Laboratory Science.

Occupational Therapy

Susan Kaplan, *Chairperson,*
Associate Professor

Alma Abdel-Moty, *Clinical Assistant*
Professor and Undergraduate
Coordinator

Lori Andersen, *Visiting Clinical*
Assistant Professor

Elise Bloch, *Clinical Assistant*
Professor

Suzanne D'Agati, *Assistant Professor*
Gail Ann Hills, *Professor*

Ann Marie Knecht, *Clinical Assistant*
Professor and Clinical Coordinator

Carol Lambdin, *Visiting Clinical*
Assistant Professor

Patricia Scott, *Associate Professor*
and Graduate Coordinator

Pamela Shaffner, *Clinical Associate*
Professor

Master of Science in Occupational Therapy

The curriculum is composed of three main components: a core of occupational therapy courses to increase understanding of the theoretical bases and current issues of occupational therapy practice; a research core to develop critical problem solving, research, and writing skills; and a clinical area of emphasis such as aging or pediatrics that students design with approval of faculty. In the clinical area, students have the opportunity to take four elective courses and develop projects and papers in addition to their theses in their areas of clinical interest. The course of study is designed for advanced study for certified occupational therapists and permits part-time enrollment.

Admission Requirements

To be admitted to the Master's degree program students must:

1. Hold a Bachelor's degree from an accredited institution.
2. Have completed an accredited curriculum in Occupational Therapy. Students who have not completed an accredited curriculum in occupational therapy can be admitted to the Master's program, but must also complete the Occupational Therapy Certificate.
3. Have a minimum of 3.0 GPA average based on a 4.0 scale in upper division courses of the Bachelor's degree, or a combined score of 1000 (verbal and quantitative parts) on the Graduate Record Examination (GRE). All students are required to take the GRE.

4. Have a basic statistics course (STA 6166 Statistical Methods I is preferred).

5. Provide three letters of reference, a curriculum vitae/resume, a summary statement of professional and educational goals and assessment of current professional activities.

6. Receive approval from the departmental graduate admissions committee.

7. International students are accepted subject to space and fiscal limitations. Students must have a Bachelor's degree or equivalent in occupational therapy from an institution recognized in their own country as preparing students for graduate level study; academic eligibility for further study in their own country; demonstrate proficiency in the English language by a minimum score of 550 on the Test of English as a Foreign Language (TOEFL).

8. Registered Occupational Therapists are admitted continuously.

(Students who must complete the professional certificate program must apply by January 15th for Summer term admission).

Degree Requirements

The Master of Science in Occupational Therapy consists of 36 credits including a thesis. Fifteen credits of core courses must be taken in the department plus a minimum of six credit hours of thesis or project.

A maximum of six credits of graduate course work may be transferred from other institutions, subject to the approval of the departmental graduate committee.

Required Courses: (36 credits)

Occupational Therapy Core

OTH 6009	Current Issues and Theories of Occupational Therapy	3
OTH 6265	Measurement and Assessment in Occupational Therapy	3
OTH 6215	Advanced Occupational Therapy Intervention Strategies	3
OTH 6948	Continuing Clinical Competence for Occupational Therapists	3

Research Core

STA 6166	Statistical Methods in Research I	3
OTH 5760	Current Research in Occupational Therapy	3
OTH 6970	Master's Thesis	6

OTH 6972 Master's Project 6

Clinical Specialty Component

Combination of Occupational Therapy and University electives in an identified area of clinical interest approved by the faculty. 12

Occupational Therapy Certificate

The certificate program can only be taken concurrently with the Master of Science in Occupational Therapy. It is designed for the student who already holds a Bachelor's degree in a field other than Occupational Therapy. Students admitted to this program will apply to the Occupational Therapy department as graduate students. Students may attend either part time or full time.

Admission to the program for those who are not already therapists is competitive and the average GPA is over 3.0 with a GRE of at least 1000.

The Occupational Therapy Certificate Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 565-2-AOTA. Graduates of the program will be able to sit for the national certification examination for occupational therapists administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice. Your eligibility for state licensure or certification may be at risk if you have been convicted or found guilty, regardless of adjudication which directly relates to the practice of occupational therapy or to the ability to practice occupational therapy. A plea of nolo contendere shall be considered a conviction for the purposes of this part.

Prerequisites

1. Biology and lab 3-4
or Anatomy/Physiology I and II with labs 6

(students who have completed Anatomy/Physiology I and II with labs have met the prerequisites for Biology with lab, but not anatomy)

2. Physiology (3 credits) or Anatomy/Physiology I and II with labs 6

(Students who have completed Anatomy/Physiology I and II with labs

have met the prerequisites for *Physiology, but not anatomy*).

- | | |
|--|---|
| 3. Theories of Personality | 3 |
| 4. Abnormal Psychology | 3 |
| 5. Human Growth and Development | 3 |
| 6. Statistics (STA 6166 Statistical Methods I preferred) | 3 |
| 7. Human Anatomy with lab ¹ | 4 |
| 8. Neuroscience ^{1,2} | 4 |

¹These courses must be numbered 3000 or above. ²If not taken as prerequisite, may be taken after admission to the master's program.

Required Courses for Certification in OT on the way to the Master's degree: (51)

- | | | |
|-----------|---|---|
| OTH 5011 | Theories & Practice of O.T. | 3 |
| OTH 5162 | Adaptation of Human Occupation | 3 |
| OTH 5202 | Occupational Development Throughout the Lifespan | 4 |
| OTH 5414 | Analysis & Adaptation Human Motion | 3 |
| OTH 5414L | Analysis & Adaptation Human Motion Lab | 1 |
| OTH 5427 | Biomechanical & Rehab App in OT | 3 |
| OTH 5427L | Biomechanical & Rehab App in OT Lab | 1 |
| OTH 3416 | Mechanism of Disease & Dysfunction in OT | 3 |
| OTH 4504 | Neuromotor Approaches in OT I | 4 |
| OTH 4426 | Neuromotor Approaches in OT II | 3 |
| OTH 4426L | Neuromotor Approaches in OT II Lab | 1 |
| OTH 5324 | Clinical Intervention for Persons with Neuropsychiatric & Cognitive Disorders | 4 |
| OTH 4761 | Professional Issues OT | 2 |
| OTH 5760 | Current Research in O.T. | 3 |
| OTH 4850 | Fieldwork II | 5 |
| OTH 4851 | Fieldwork II | 5 |

¹Level II Fieldwork must be completed within 24 months of the didactic course work.

Course Descriptions

Definition of Prefix

OTH - Occupational Therapy
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

OTH 5011 Theories and Practice of Occupational Therapy (3). The theoretical foundations of occupational

therapy and issues affecting professional practice. (SS)

OTH 5162 Adaptation of Human Occupation (3). Through development of an understanding of the components and nuances of human occupation, students will develop skills needed to promote optimal performance through simulation and adaptation of life tasks. (SS)

OTH 5195 Occupational Therapy Job Modification (3). Analysis and adaptation of client's workplace for the disabled. Prerequisite: Admission to program or Permission of the instructor (occasional elective).

OTH 5202 Occupational Development Throughout the Life Span (4). Occupation throughout the life span including social, cultural, and environmental factors on occupational competence. (F)

OTH 5213 Pediatric Seminar: School Based Occupational Therapy (3). Course designed to provide students with necessary skills and specific knowledge to practice occupational therapy effectively in the educational setting. One week fieldwork. Interdisciplinary classes with physical therapy. Prerequisite: Permission of the instructor.

OTH 5214 Occupational Therapist Role in Family Centered Care (3). Course designed to orient O.T. students to family-centered care issues, such as legislation, cultural issues, family systems and empowerment strategies, in order to prepare them for clinical practice. Prerequisite: Permission of the instructor.

OTH 5324 Clinical Intervention for Persons with Neuropsychiatric & Cognitive Disorders (4). Develops clinical reasoning abilities in the selection of assessment and treatment strategies for individuals with cognitive and neuropsychiatric disorders. (S)

OTH 5326 Psychiatric O.T.: Contemporary Theory and Practice (3). Examination of contemporary knowledge relevant to the theory and practice of O.T. in psychiatry. Prerequisite: Admission to Program or Permission of the instructor.

OTH 5345 Occupational Therapy Program Development in Psychiatry (3). Seminar discussion and practical experience in OT programming in psychiatry. Prerequisite: Admission to program or Permission of the instructor.

OTH 5405C Analysis of Therapeutic Procedures in Physical Disabilities (3). A lecture/lab course designed to introduce advanced students to theory based assessment problem identification and treatment for the physically disabled adult.

OTH 5406 Sensory Problems and Therapeutic Implications (3). An in-depth study of sensory problems and the implications for therapy. A variety of patient populations and clinical applications will be discussed. Prerequisite: Graduate standing or Permission of the instructor (occasional elective).

OTH 5407 Theoretical Perspectives of Pain (3). Theoretical perspectives of pain: etiology, assessment, management and effects. Prerequisite: Admission to the program or Permission of the instructor (occasional elective).

OTH 5414 Analysis & Adaptation in Human Motion (3). Presents anatomical, physiological, and biomechanical principles of human motion & biomechanical frame of reference in adaptation with biomechanical problems. (F)

OTH 5414L Analysis & Adaptation in Human Motion Lab (1). Laboratory to accompany OTH 5414, Analysis & Adaptation of Human Motion in OT. (F)

OTH 5427 Biomechanics & Rehabilitative Approaches in OT (3). Biomechanics and rehabilitative frames of reference as they focus on body parts and occupational performance.

OTH 5427L Biomechanics & Rehabilitative Approaches in OT Lab (1). Lab to accompany OTH 5427 Biomechanics & Rehabilitative Approaches.

OTH 5440 Treatment Approaches for the Neurologically Impaired (3). In depth instruction in approaches to the neurologically impaired patient. Emphasis will be on dysfunction due to stroke or head injury. Prerequisite: OTH 4422 or equivalent.

OTH 5503 Current Occupational Therapy Practice in the Neonatal Intensive Care Unit (3). Theoretical framework and guidelines for assessment and intervention in a neonatal intensive care unit. Prerequisite: Majors only.

OTH 5600 Study of Gerontology as Related to Occupational Therapy (3). An overview of current issues in the

practice of occupational therapy for the aged.

OTH 5610 Foundations in Gerontology for Health Professions (3). Implication for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

OTH 5613 Interdisciplinary Approach to Aging (3). Issues related to roles of specific health team members and application of interdisciplinary approach to care of the elderly. Prerequisite: Aging course or work experience with elderly, Permission of the instructor.

OTH 5630 OT Assessment of the Elderly (3). Study of assessment techniques appropriate for OT evaluation of the elderly. Prerequisite: Admission to program.

OTH 5751 Rehabilitation Seminar in Occupational Therapy (3). A seminar designed to gain an understanding of OT clinical practice areas in rehabilitation. Various clinicians will present their perspectives of organizational structure, populations served, evaluation and treatment approaches. Prerequisite: Permission of the instructor.

OTH 5760 Current Research in Occupational Therapy (3). Review of statistical concepts and research procedures in the clinical setting, with in-depth study of the current status of research in occupational therapy. (S)

OTH 5764 Research in a Clinical Specialty (3). Participation in ongoing research of faculty members in clinical specialty area. Prerequisite: Permission of the instructor. (SS)

OTH 5765 Research in Clinical Practice (3). Students identify a research topic and questions based on observation of clinical problems during field visits.

OTH 5805 Service Learning in Health (3). Student's learning is centered on a community service experience which meets specific principles of service learning. Prerequisite: Admission to graduate study in OT. (Other graduate students or graduate certificate students in aging admitted by Permission of the instructor.)

OTH 5905 Independent Study (Variable Credit). (F,S,SS)

OTH 5934 Evaluation and Treatment of Hand Dysfunction (3).

Seminar in current issues related to the assessment and treatment of common injuries of the hand (occasional elective).

OTH 5938 O.T. Theoretical Perspectives in Health Therapy (3). This seminar course is designed to examine the OT's role in the prevention of both physical and mental diseases. It will demonstrate and discuss how OT foundational under-pinnings provide the tools therapists need to guide patients and clients toward lifestyle behaviors which can prevent or delay disease onset and foster functional adaptation. Prerequisite: Permission of the instructor.

OTH 5XXXL Role of Occupational Therapist in Family Centered Care of Elderly (3). Issues related to caregiving of elder and caregivers including autonomy, cultural influences and family systems. Prerequisites: Permission of Instructor.

OTH 6009 Current Issues and Theories of Occupational Therapy (3). Exploration of current issues and theories in occupational therapy leading to development of student's theoretical reference for practice. Prerequisite: Admission to the program.

OTH 6215 Advanced OT Intervention Strategies (3). Principles and characteristics of treatment regimens designed to enhance the study of treatment effectiveness. Emphasis on application of activity appropriate for student's clinical concentration. Prerequisite: Admission to program. (F)

OTH 6265 Measurement and Assessment in Occupational Therapy (3). Measurement concepts and practices used in occupational therapy evaluation. Prerequisite: Admission to program or Permission of the instructor.

OTH 6507 Occupational Therapy for Occupationally Dysfunctional Children & Adolescents. Exploration of factors leading to successful adaptation to occupational roles, are explored with particular emphasis on the relationship between these factors and Occupational Therapy theory. Prerequisite: Permission of the instructor.

OTH 6538 Advanced Methods in Pediatric Assessment (3). Advanced applications of theory and research in the area of pediatric occupational therapy assessment. Skills in neonatal,

neurodevelopmental, occupational behavior, and computer-assisted methods.

OTH 6542 Role of the Occupational Therapist in the School System: A Consultation Model (3). Course introduces consultation as a viable service provision option to enable occupational therapists to create more effective living and learning environments on behalf of children. Prerequisite: Permission of the instructor.

OTH 6548 Advanced Methods in Pediatric Occupational Therapy (3). Advanced application of theory and research in occupational therapy. Includes neurodevelopmental treatment approaches, neonates through adolescents. Prerequisite: OTH 6538.

OTH 6937 ADA Workplace Accommodations of Persons with Disabilities (3). Interdisciplinary course designed to bring together students of both rehabilitation and business/management disciplines to develop strategies to implement the Title I-Workplace provision of the Americans with Disabilities Act. (ADA).

OTH 6948 Continuing Clinical Competence for Occupational Therapists (3). Design, execution, and presentation of a major Occupational Therapy project.

OTH 6970 Master's Thesis (1-6). Supervised research on a research project submitted in partial fulfillment of Master's degree requirement. Prerequisite: Permission of major professor. (F,S,SS)

OTH 6972 Master's Project (1-6). An individually supervised project for occupational therapy graduate students.

Physical Therapy

Helen Z. Cornely, *Assistant Professor*
Steven Bernstein, *Clinical Assistant Professor*

Leonard Elbaum, *Associate Professor and Chairperson*

Cynthia Gonzalez, *Visiting Clinical Assistant Professor*

Lori Gusman, *Clinical Assistant Professor & Academic Clinical Coordinator*

Awilda R. Haskins, *Associate Professor*

Steve Janos, *Visiting Clinical Assistant Professor*

Joyce Maring, *Clinical Assistant Professor*

Lisa Roberts, *Visiting Clinical Assistant Professor*

Colleen Rose-St. Prix, *Associate Professor*

Neva Sanchez, *Assistant Professor*

About the Department

The Department of Physical Therapy is part of the School of Health, which in turn is a part of the College of Health and Urban Affairs.

The Mission of the Physical Therapy Department is to meet the physical therapy needs of the local, state, national, and international community by:

- providing entry-level and post-professional physical therapy education,
- advancing the knowledge base of physical therapy,
- and by developing innovative model physical therapy service programs.

Our entry-level curriculum is accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE), and has been since its inception in 1975, allowing graduates of the program to apply for licensure as Physical Therapists throughout the United States.

The department occupies over 6,000 square feet of offices and laboratories on the University Park Campus of FIU. It will move to the new Health and Life Sciences building when it opens in 2002. The departmental inventory includes the full range of clinical equipment used by practicing physical therapists, and is continually updating equipment to support faculty and student research projects. The Kinesiology Laboratory houses several state of the art computer systems with the capability to analyze human movement with high speed digital

video, force sensors, and surface electromyography.

Courses are taught by the department's full-time faculty and numerous adjunct faculty. Collectively, the faculty has well over 100 years of teaching, research, and clinical experience.

The clinical and research interests of the faculty range from pediatrics to geriatrics, and from neuroscience to biomechanics. Several faculty members specialize in the impact of social, psychological, and cultural factors on health care delivery and education.

The faculty prides itself on its intellectual, cultural, racial, and ethnic diversity. There are approximately 200 students in the department, including graduate students in the Entry-level Program, and the Advanced Clinical Practice Program, undergraduates in the BS-Health Sciences-Pre-Physical Therapy Track, and special students.

The curriculum features a progressive, problem-oriented approach and includes rigorous coverage of the full range of basic medical sciences, clinical sciences, and hands-on skills relevant to the practice of physical therapy, now and in the future.

The department offers two programs. The Entry-level, Professional Preparation Program is designed for individuals who wish to become Physical Therapists. The Advanced Clinical Practice Program is designed for Physical Therapists who wish to enhance their level of clinical skills, and/or clinically-related research, administrative or educational skills.

The Professional Preparation Program

The Professional Preparation Program is designed for students who possess a Bachelor's Degree in any discipline, as long as they have taken the prerequisite courses described below.

Prospective applicants who do not yet possess the Bachelor's Degree should consider coming to FIU for Bachelor of Health Science-Physical Therapy Track, which allows students to take several courses usually reserved for graduate students, and to complete the Master's Degree in as little as 3 semesters beyond the BS.

The program is rigorous, and is recommended only for highly motivated students with proven records of success as undergraduates.

Upon completion of this program, students will earn a Master of Science (MS) degree, and will be eligible to apply for licensure as a Physical

Therapist anywhere in the United States and several other jurisdictions.

The program of studies includes 75 credits of didactic and laboratory training. Full-time students may complete the program in as few as 5 semesters.

All classes, with the exception of Clinical Internship, will be offered online and/or outside of the regular business hours at least one time every two years to accommodate the needs of working, part-time students. Part-time students should be able to complete the program in as few as 10 semesters.

Admission Requirements:

- Admission into FIU as a graduate student
- Completion of the GRE
- A combined GRE Quantitative/Verbal Score of at least 1,000
- GPA of 3.0 for the last 60 hours of the undergraduate coursework

Completion of the following prerequisites**:

Chemistry	8
Developmental Psychology	3
General Biology	4
Human Anatomy#	3
Human Physiology or Exercise Physiology	3
Physics	8
Psychology	3
Statistics	3

**Applicants who have completed the majority of these prerequisites may be admitted to the program, but will be required to complete them as part of their program of studies

#Three credits are required, but 8 credits (6 Lecture, 2 Laboratory) of Human Anatomy with cadaver dissection highly recommended (eg. ZOO3733, 3733L, 3734 and 3734L at FIU).

Deadlines:

- Applications are accepted any-time, and admissions decisions are usually made within 25 business days of the date supporting documents are received by the Office of Admissions.
- The final application deadline for students wishing to begin their studies in the Fall semester is June 15. Students may begin their studies in the Spring or Summer terms, depending on sufficient enrollment.
- The program has limited space, and is usually unable to accept every qualified candidate. Capacity may be filled well before

the deadline date, therefore early application is strongly encouraged.

Application and instructions are available from the department office or website.

Program of Studies

PHT 5027	Clinical Education Seminar	1
PHT 5174	Analysis of Movement and Function	3
PHT 5174L	Analysis of Movement and Function Lab	1
PHT 5180	Musculoskeletal Diagnosis and Management I	3
PHT 5180L	Musculoskeletal Diagnosis and Management I Lab	1
PHT 5181	Musculoskeletal Diagnosis and Management II	3
PHT 5181L	Musculoskeletal Diagnosis and Management II Lab	1
PHT 5182	Musculoskeletal Diagnosis and Management III	3
PHT 5182L	Musculoskeletal Diagnosis and Management III Lab	1
PHT 5505C	Physical Therapy Constructs of Health	3
PHT 5508	Clinical Internship I	3
PHT 5523	Dimensions of Professional Practice Seminar I	3
PHT 5524	Dimensions of Professional Practice Seminar II	3
PHT 5525	Dimensions of Professional Practice Seminar III	3
PHT 5960	Comprehensive Exam I	0
PHT 6163	Neurological Diagnosis and Management I	3
PHT 6163L	Neurological Diagnosis and Management I Lab	1
PHT 6164	Neurological Diagnosis and Management II	3
PHT 6164L	Neurological Diagnosis and Management II Lab	1
PHT 6169	Neurological Diagnosis and Management III	3
PHT 6169L	Neurological Diagnosis and Management III Lab	1
PHT 6341	Diagnosis and Management of Disease	3
PHT 6341L	Diagnosis and Management of Disease Lab	1
PHT 6381	Diagnosis and Management of	

	Cardiopulmonary Systems	3
PHT 6381L	Diagnosis and Management of Cardiopulmonary Systems Lab	1
PHT 6526	Dimensions of Professional Practice Seminar IV	3
PHT 6817	Clinical Internship II	3
PHT 6827	Clinical Internship III	3
PHT 6828	Clinical Internship IV	3
PHT 6961	Comprehensive Exam II	0
PHT 6970/1	Master's Project or Thesis	6
ZOO 5xxx	Clinical Anatomy for Physical Therapists	3
ZOO 5xxxL	Clinical Anatomy for Physical Therapists Lab I	

The Advanced Practice Program

The goals of the program are to:

1. Provide physical therapists with skills to enable them to function effectively in clinical settings, research programs, educational programs and/or supervisory positions.
2. Prepare individuals who will contribute to the promotion of health in the community through the application of scientific principles of human movement to include identification, prevention, assessment and correction of acute or chronic movement dysfunction.
3. Provide physical therapists whose skills and knowledge are commensurate with the expanding need for health care services in South Florida, as well as the rest of the state, nation and international community.

Admission Requirements

- Admission into FIU as a graduate student
- Completion of the GRE
- A combined GRE Quantitative/Verbal Score of at Least 1,000 or
- A GPA of 3.0 for the last 60 hours of undergraduate coursework
- Evidence of graduation an entry level physical therapy program accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE), or the equivalent.*
- A minimum of three letters of recommendation to include one from each of the following persons: a college or university

professor; a physical therapists; a current or past employer.

- A curriculum vitae/resume
- A summary statement of professional and educational goals and assessment of current professional activities (attached to resume)
- A copy of a license to practice physical therapy in the State of Florida or other jurisdiction.

*To physical therapists trained outside of the United States, and/or graduates of programs not accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE):

We are flattered by your interest in our Department, and we encourage you to apply admission to our Advanced Master's Degree program. We feel strongly that our Department is enriched by the presence of students who represent a wide variety of cultures, interests, and opinions. However, before you take the time and trouble of making a formal application; we want to advise you of an extra, sometimes cumbersome step we must require you to take.

Our Master's Degree Program is recognized by the State of Florida representing sufficient educational experience to apply for licensure, therefore we are obligated to insure that every student meets the accreditation requirements of the Commission on Accreditation of Physical Therapy (CAPTE) before we grant them their degree.

We recognize that many entry-level physical therapy programs around the world are more advanced than our programs, but some are not, and/or they focus on different aspects of physical therapy than our program.

Therefore, before we can admit you to our program, and plan an appropriate program of studies, we must ask you to arrange for a transcript evaluation by a credentialing agency approved by the State of Florida Board of Physical Therapy Practice. A copy of this evaluation must accompany your Supplemental Application, and be sent directly to our department.

These credentialing services compare the coursework you have completed to the content required by CAPTE-accredited programs. Your subsequent plan of study at Florida International University may include courses that cover content areas identified as deficient by the transcript evaluation. To contact the Florida Board of Physical Therapy Practice for a list of approved credentialing services, please write or call:

Board of Physical Therapy Practice
4052 Bald Cypress Way
Tallahassee, Florida 32399-3255
Telephone: 850-245-4373

You may also get the information from the Florida Physical Therapy Association's Website:
<http://www.fpta.org/fpta/BoardofPT/agencies.html>.

Program of Studies

The Master of Science in Physical Therapy consists of 36 credits including thesis or master's project. Fifteen credits of graduate level physical therapy courses and an advanced physical therapy research course must be taken. Additional required courses include a minimum of nine graduate credits of out-of-department electives, and a graduate-level statistics course.

A maximum of six credits of graduate work may be transferred from other institutions, provided they are approved by the departmental graduate committee, deemed equivalent to program requirements, and in compliance with the University's graduate policies and procedures.

To maximize each student's satisfaction with the University, individualized programs of study designed to student needs and the guidelines described above will be developed for each student in collaboration by their advisor, the Graduate Coordinator, and/or the Chairperson.

For additional information, please contact the department directly.

Course Descriptions

Definition of Prefixes

PHT - Physical Therapy

PHT 4233 Physical Therapy Management of the Pediatric Patient (3). Application of various exercise techniques to the treatment of individuals with neurodevelopmental deficits. Prerequisite: Majors only. Corequisite: PHT 4233L. (S)

PHT 4233L Physical Therapy Management of the Pediatric Patient Lab (1). Laboratory and field experiences will be utilized for practice of neurohabilitation techniques. Corequisite: PHT 4233. (S)

PHT 5027 Clinical Education Seminar (1). This course is designed to address pre-requisite clinical education issues that historically contribute to the overall success in the clinical internships. Topics range from use of the evaluation tool to taxonomies of learning. Prerequisite: Admission to Professional PT Curriculum or permission of department.

PHT 5045 Applied Educational Theory in Physical Therapy (3) The application of teaching and learning principles to Physical Therapy patient education, student clinical education,

and continuing education. A variety of teaching methodologies will be practiced by participants. Prerequisite: Admission to PT Professional Program or permission of department.

PHT 5174 Analysis of Movement and Function (3). The course is designed to give physical and/or occupational therapy students the cognitive skills necessary to analyze human movement in the context of physical therapy practice. Prerequisite: Admission to PT Professional Program or permission of department. Corequisites: PHT 5174L.

PHT 5174L Analysis of Movement and Function Lab (1). The course is designed to give physical and occupational therapy students the psychomotor skills necessary to analyze human movement in the context of PT practice. Prerequisite: Admission to PT Professional Program or permission of department. Corequisites: PHT 5174.

PHT 5180 Musculoskeletal Diagnosis and Management I (3). This course is designed to prepare the student in the area of physical therapy related musculoskeletal diagnosis and treatment with focus on upper extremities. Prerequisite: Admission to PT Professional Program or permission of department. Corequisites: PHT 5180L.

PHT 5180L Musculoskeletal Diagnosis and Management I Lab (1). This is the laboratory course designed to prepare students for evaluating and treating physical therapy related musculoskeletal diagnosis. Prerequisite: Admission to PT Professional Program or permission of department. Corequisites: PHT 5180.

PHT 5181 Musculoskeletal Diagnosis and Management II (3). This is designed to prepare the student in the area of Physical Therapy related musculoskeletal diagnosis treatment with focus on lower extremities. Prerequisites: PHT 5180 and PHT 5180L. Corequisites: PHT 5181L.

PHT 5181L Musculoskeletal Diagnosis and Management II Lab (1). This is a laboratory course designed to prepare students for evaluating and treating physical therapy related musculoskeletal diagnosis. Prerequisite: PHT 5180 and PHT 5180L. Corequisites: PHT 5181.

PHT 5182 Musculoskeletal Diagnosis and Management III (3). This course is designed to prepare the student in the area of Physical Therapy related musculoskeletal diagnosis and treatment with focus on the spine. Prerequisites: PHT 5180 and PHT 5180L. Corequisites: PHT 5182L, PHT 5181 and PHT 5181L.

PHT 5182L Musculoskeletal Diagnosis and Management III Lab (2). This is a laboratory course designed to prepare students for evaluating and treating physical therapy related musculoskeletal diagnosis specific to the spine. Prerequisites: PHT 5180 and PHT 5180L. Corequisites: PHT 5182, PHT 5181 and PHT 5181L.

PHT 5218 Physical Agent Modalities for Non-Physical Therapy Majors (1). The course is an introduction to physical agent modalities in rehabilitation for students and practitioners of occupational therapy, athletic training, massage therapy or other health care professions.

PHT 5328 Advanced Pediatric Physical Therapy Assessment (3). Analysis of assessment tools in relation to treatment. Competence in administration of appropriate tools will be required at end of course. Prerequisites: Either STA 5126 or STA 6166 and Permission of the instructor.

PHT 5335 Physical Therapy in Obstetrics/Gynecology (3). This course will explore the role of the therapist in the field of obstetrics and provide an introduction to gynecological issues. Emphasis will be on evaluation and treatment of the OB client. Prerequisite: Permission of the instructor.

PHT 5336 Theories in Cardiopulmonary Rehabilitation (3). This course is designed to provide students with applied theory in the clinical and physical therapy management of medical and surgical cardiac and respiratory conditions. Prerequisite: Permission of the instructor.

PHT 5373 Advanced Therapy Assessment of the Elderly (3). The study of assessment tools used in geriatric rehabilitation in relation to appropriate intervention strategies and research findings. Prerequisites: Appropriate adult motor development course/permission of major advisor.

PHT 5375 Foundations in Gerontology for Health Professions (3).

Implications for health professions of the biological, cross-cultural, physiological, psychological, social, and societal context's of aging.

PHT 5504 Service Learning in Physical Therapy (1-3). The course includes a brief introduction to community service in Physical Therapy, an opportunity to assist professionals to deliver community-based physical therapy services, and the preparation of case studies based on the students's experiences. Prerequisite: Advanced standing in the undergraduate PT program or admission to Graduate PT program.

PHT 5505C Physical Therapy Constructs in Health and Wellness (3). Covers elements of Physical Therapy related prevention, screening, health and wellness for individuals, schools, and communities.

PHT 5515 Therapeutic Services for Physically Impaired and Mentally Retarded Students (3). Lecture, lab, and group work to develop skills of education and therapy professionals for implementation with disabled children in schools. Prerequisite: Permission of major advisor or instructor.

PHT 5523 Dimensions of Professional Practice Seminar I (3). This is the first in a sequence of four (4) courses designed to prepare the student in the areas of physical therapy related research, administration, education and professional issues. Prerequisite: Admission to Professional PT Curriculum.

PHT 5524 Dimensions of Professional Practice Seminar II (3). This is the second in a sequence of four (4) courses designed to prepare the student in the areas of physical therapy related research, administration, education and professional issues. Prerequisite: PHT 5523.

PHT 5525 Dimensions of Professional Practice Seminar III (3). This is the third in a sequence of four (4) courses designed to prepare the student in the areas of physical therapy related research, administration, education and professional issues. Prerequisite: PHT 5524.

PHT 5639 Physical Therapy Administrative Techniques and Methods (3). Provides an in-depth view of the health care industry and its relationship to the P.T. profession. Management techniques in all areas

will be presented with emphasis on planning and financial management.

PHT 5805 Clinical Internship I (3). This is the first in a sequence of 4 supervised full-time clinical internships designed to offer the student experiences in patient evaluation and care with emphasis on musculoskeletal dysfunction. Prerequisites: Musculoskeletal Diagnosis and Management III.

PHT 5815 Clerkship in Physical Therapy (2). Two-week full-time clinical experience combined with independent study of question or issue in clinical Physical Therapy. Prerequisites: Permission of major advisor.

PHT 5823 Internship (3). Supervised, full-time clinical experience, designed to offer the student experience in patient evaluation and care, particularly in the areas of rehabilitation and neurorehabilitation. Prerequisite: PHT 4933.

PHT 5960 Comprehensive Exam I (0). This is the first of two comprehensive examinations that cover all previously completed coursework and is required for continued progression in the curriculum. Prerequisite: Fall Semester Courses-Year I.

PHT 6009 Differential Diagnosis in Physical Therapy (3). This course is designed to enable the physical therapy student to engage in the diagnostic process to establish differential diagnoses for patients across the life span. Prerequisite: PHT 4300.

PHT 6127 Advanced Pathologic Movement Analysis (3). Explores the abnormal gait and movement patterns as they relate to pathologic states involving either the musculoskeletal or the neurologic system, or both. Prerequisite: Permission of major advisor.

PHT 6145 Motor Development: Adult Through Geriatrics (3). A study of motor development of the adult through old age. Application of developmental principles to physical therapy practice and research. Prerequisite: Permission of major advisor.

PHT 6163 Neurological Diagnosis and Management I (3). This is the first in a sequence of three (3) lecture courses designed to prepare the student in the areas of physical therapy related neurological diagnosis and treatment.

Prerequisite: Acceptance in the program. Corequisites: PHT 6163L.

PHT 6163L Neurological Diagnosis and Management I Lab (1). This is the first in a sequence of three (3) laboratory courses designed to prepare the student in the areas of physical therapy related neurological diagnosis and treatment. Corequisites: PHT 6163.

PHT 6164 Neurological Diagnosis and Management II (3). This is the second in a sequence of three (3) lecture courses designed to prepare the student in the areas of physical therapy related neurological diagnosis and treatment. Prerequisite: PHT 6163. Corequisites: PHT 6164L.

PHT 6164L Neurological Diagnosis and Management II Lab (1). This is the second in a sequence of three (3) laboratory courses designed to prepare the student for psychomotor competencies in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 6163L. Corequisites: PHT 6164.

PHT 6165 Applied Clinical Neuroanatomy (3). Examines correlation of sites of pathology in the central and peripheral nervous systems with actual patients; their signs and symptoms, their regimen of treatment, and prognosis for rehabilitation. Prerequisites: Neuroanatomy and permission of major advisor.

PHT 6169 Neurological Diagnosis and Management III (3). This is the third in a sequence of three (3) lecture courses designed to prepare the student in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 6164. Corequisites: PHT 6169L.

PHT 6169L Neurological Diagnosis and Management III Lab (1). This is the third in a sequence of three (3) laboratory courses designed to prepare the student for psychomotor competencies in the areas of physical therapy related neurological diagnosis and treatment. Prerequisites: PHT 6164. Corequisites: PHT 6169.

PHT 6237 Environments/Energy Expenditures of the Disabled (3). Analysis of the home and work settings in relation to various forms of physical disabilities. Energy expenditures pertaining to environmental factors as they pertain to physical therapy evaluation and treatment. Prerequisite: Permission of major advisor.

PHT 6239 Developmental Disabilities in Adulthood (3). A study of adults with developmental disabilities; including aspects of societal perspectives, political and public policy regarding the handicapped, and current theories in treatment of the handicapped adult population. Prerequisite: Permission of major advisor and instructor.

PHT 6325 Advanced Clinical Pediatric Physical Therapy (3). The study of theory, treatment and current clinical research in pediatric physical therapy practice. Prerequisite: Permission of major advisor and PHT 5320.

PHT 6326 Physical Therapy for At-Risk Infants (3). This course will explore current PT practice and research for at-risk infants in NICU, NCCU, and follow-up programs. Includes aspects of physiological and behavioral monitoring indicators for physical therapy intervention. Prerequisite: PT graduate students.

PHT 6341 Diagnosis and Management of Disease (3). Covers Physical Therapy implications of disease processes, conditions and systemic disorders throughout the lifespan.

PHT 6341L Diagnosis and Management of Disease Lab (1). The practicum portion of PHT 6341 that covers physical therapy intervention in disease processes, conditions, and systemic disorders throughout the life span.

PHT 6365 Theories in Sports Physical Therapy (3). Study and exploration of relevant issues in sports physical therapy. Focus on problem identification, investigation, analysis, and problem solving approaches. Prerequisite: Permission of major advisor.

PHT 6381 Diagnosis and Management of Cardiopulmonary Systems (3). This lecture course covers the elements of patient and client management provided by physical therapists with anticipated goals of preferred practice patterns in cardiopulmonary care. Prerequisite: Admission to PT Professional Program. Corequisites: PHT 6381L.

PHT 6381L Diagnosis and Management of Cardiopulmonary Systems Lab (1). This laboratory course covers the elements of patient and client management provided by

physical therapists with anticipated goals of preferred practice patterns in cardiopulmonary care. Prerequisite: Admission to PT Professional Program. Corequisites: PHT 6381.

PHT 6401 Client-Centered Rehabilitation (3). Utilizes small and large group discussion, multimedia presentations, readings and projects to explore issues of communication, cultural diversity and client-centered rehabilitation.

PHT 6526 Dimensions of Professional Practice Seminar IV (3). This is the fourth in a sequence of four (4) courses designed to prepare the student in the areas of physical therapy related research, administration, education and professional issues. Prerequisite: PHT 5525.

PHT 6625 Advanced Physical Therapy Clinical Research Methodologies and Design (3). Exploration of scientific method and theory as applied to clinical and experimental research in physical therapy; includes method of inquiry, techniques of data collection, organization, and interpretation. Prerequisites: STA 5126 or STA 6166 and permission of major advisor.

PHT 6705 Long Term Rehabilitation for Persons with Chronic Disease and Disability (3). Applying long term rehabilitation for persons with chronic disease and disability with focus on the continuum of fitness, health and rehabilitation throughout the life span. Prerequisite: PHT 4711.

PHT 6706 Information and Communication Technology in Rehabilitation (3). An introductory course that focuses on computer rehabilitation technology for clinical practices, research and education, and devices that assist the quality of patient activities. Prerequisite: Student should have a basic understanding of personal computers.

PHT 6714 Spinal Dysfunction I (Lower Back) (3). In-depth exploration of the evaluation and treatment of various lumbar spine dysfunctions. Prerequisite: Permission of major advisor.

PHT 6715 Spinal Dysfunction II (Upper Back) (3). In-depth exploration of the evaluation and treatment of various cervical spine dysfunctions. Prerequisite: Permission of major advisor.

PHT 6716 Theories in Orthopedic Physical Therapy (3). Study and

exploration of relevant issues in orthopedic physical therapy. Focus on problem identification, investigation, analysis, and problem solving approaches. Prerequisite: Permission of major advisor.

PHT 6718 Theories in Neurorehabilitation (3). Examines theoretical bases of evaluation and treatment of the neuro-patient; includes exploration of the relationship of motor control and motor learning to current neurologic rehabilitation. Prerequisite: Permission of major advisor.

PHT 6725 Extremity Evaluation and Rehabilitation (3). In-depth exploration, critical analysis, and investigation of joint and extremity dysfunctions. Prerequisite: Permission of major advisor.

PHT 6817 Clinical Internship II (3). This is the second in a sequence of 4 supervised full-time clinical internships designed to offer the student experience in patient evaluation and care with general medical and surgical clients. Prerequisite: Diagnosis and Management of Disease.

PHT 6824 Internship I (3). Supervised full-time clinical experience with emphasis on: evidence-based practice; clinical decision making; administration; educational activities; outcomes assessment; differential diagnosis; and consultation. Prerequisite: PHT 6009.

PHT 6825 Internship II (3). Continuation of PHT 6824, Internship I. Prerequisite: PHT 6824.

PHT 6826 Internship III (3). Continuation of PHT 6825, Internship II. Prerequisite: PHT 6825.

PHT 6827 Clinical Internship III (3). This is the third in a sequence of 4 supervised full-time clinical internships designed to offer the student experience in patient evaluation and care with the neurologically involved client. Prerequisite: Neuromuscular Diagnosis and Management III.

PHT 6828 Clinical Internship IV (3). This is the final in a sequence of 4 supervised full-time clinical internships designed to offer the student experience in patient care in a specialty setting, including but not limited to pediatrics, SCIP, burns, etc. Prerequisite: Clinical Internship III.

PHT 6845 Resources and Skills for the PT/PI student (3). This course focuses on the interdisciplinary team that works for the optimum educational

benefit of the student. Therapists and teachers will learn and work collaboratively within this course. Corequisite: Graduate OT, PT, or Education students.

PHT 6905 Independent Study (1-3). Individually determined, research-oriented, in-depth study of a physical therapy issue. An independent study contract must be approved by the instructor. Prerequisite: Permission of major advisor and instructor. Must be fully admitted to the graduate program.

PHT 6961 Comprehensive Exam II (0). The second comprehensive examination covering all previously completed coursework and is required for continued progression in the curriculum. Prerequisite: Fall Semester-Year II.

PHT 6970 Master's Project (1-3). An individually supervised project for physical therapy students, who prefer non-thesis option.

PHT 6971 Master's Thesis (1-3). Supervised research which demonstrates the application of analytical, conceptual and technical skills to a specific physical therapy problem. Prerequisite: Permission of major advisor.

Public Health

H. Virginia McCoy, *Associate Professor and Chairperson*
William W. Darrow, *Professor*
Janvier Gasana, *Assistant Professor*
WayWay M. Hlaing, *Assistant Professor*
William J. Keppler, *Professor*
Joseph Patterson, *Professor Emeritus*
Richard T. Patton, *Clinical Assistant Professor, Field Experience Coordinator, and Academic Advisor*
Robert R. Stempel, *Associate Professor*

Master of Public Health

The Master of Public Health (MPH) is accredited by the Council on Education for Public Health.

The MPH program is designed to provide fundamental skills in core areas of Public Health and to serve those seeking a broader base of knowledge to improve environmental and personal health services for the community.

The mission of the Department of Public Health at Florida International University is to educate, train, and serve the interests of Public Health by:

- educating and training health professionals;
- promoting health maintenance and disease prevention;
- conducting research and disseminating useful information;
- serving the health needs of minorities, the underserved and the people of South Florida;
- emphasizing our geographical location to the Caribbean and Latin America.

The MPH Program is an affiliated program offered with the Department of Epidemiology and Public Health at the University of Miami's School of Medicine.

Admission Requirements

Applicants must meet the University's general graduate admission requirements:

1. A Bachelor's degree or equivalent from an accredited college or university or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level, and submit a score of 550 on the TOEFL.
2. A minimum 3.0 GPA (on the last 60 undergraduate hours), or a combined quantitative and verbal score of 1000 on the GRE taken within the last five years; or a score of 500 on the GMAT; or a graduate degree from an

accredited institution. However, all applicants, regardless of previous GPA, are required to submit the appropriate aptitude test scores. In addition, applicants are required to 1) submit three letters of recommendation from persons in the field of public health and the academic major at the institution most recently attended; 2) submit a written personal statement as described in the application packet provided by the Department of Public Health; 3) provide a current curriculum vitae/ resume.

Students with diverse backgrounds are encouraged to apply.

Computer Requirements

Entering students must demonstrate basic computer literacy, either through course work or by demonstration to the advisor. Students are expected to show that they can load and run software programs, and have reasonable proficiency in word processing. Two core courses, PHC 6715 Survey Research in Public Health and PHC 6050 Public Health Statistics, require use of SPSS. This requirement will assure that students are prepared for these and other courses which require additional computer skills needed in public health practice.

Masters Culmination

All MPH students must complete either a field-training experience or a research option as a core requirement.

Field Experience Option

This option is recommended for all students with less than three years of experience in a health-oriented program. Field experience gives the student the opportunity to gain practical experience under preceptor-guided supervision in public health. Students should consult the Field Experience Coordinator for further information.

Research Options

These options are recommended for students entering the program with three or more years of experience in a health-related program.

Masters Research Project

The research project affords the opportunity to conduct research on a specific public health problem or topic in either a community or institutional setting. MPH students who select the research project must choose a faculty member to direct their research. The advisor and the student may identify other resource persons to serve in an

advisory capacity for the research project.

Masters Thesis

The thesis option provides students the opportunity to conduct original research on a public health problem or topic and to report this in a scholarly manuscript. Students who select this option must choose a major professor to act as the chair of their thesis committee and two additional members. Before beginning work on a thesis, student must present a proposal to their committee for approval. The committee will direct and supervise the work carried out by the student.

Degree Requirements

Students must complete at least 46 semester hours of approved course work with a minimum of a 'B' average. All work applicable to the degree must be completed within six years immediately preceding the awarding of the Master's degree.

Program of Study

The Department offers three programs of study.

Environmental Health courses prepare professionals to utilize technical data, decision-making theory, managerial methods, socio-legal issues, and risk assessment in the development and implementation of public policy, environmental standards, and environmental protection programs. See also Graduate Certificate in Environmental Health and Graduate Certificate in Conflict Resolution.

Epidemiology courses prepare students to investigate the distribution of diseases, disease outbreaks, epidemics, and health conditions in the population, the factors determining the distribution. (Graduate Certificate expected 2002).

Health Promotion courses prepare students to develop and implement health promotion/health education programs in various sites. This program of study is concerned with personal and public health lifestyles, identification of risk factors and behavioral change strategies that promote positive health behaviors of individuals, groups, and community. See also Graduate Certificate in Health Promotion.

General Core Courses: (22)

PHC 6000	Introduction to Public Health Epidemiology	3
PHC 6050	Public Health Statistics	3
PHC 6315	Public Health and Environmental Management	3

PHC 6410	Health Behavior and Public Health	3	PHC 6425	Legal and Regulatory Aspects of Environmental Health	3
PHC 6443	Ethical Issues in Public Health	3	PHC 6520	Public Health Aspects of Foodborne Disease	3
PHC 6500	Foundations of Public Health Practice	3	PHC 6111	Primary Health Care Strategies	3
PHC 6715	Survey Research in Public Health	3	PHC 6115	International Public Health	3
STA 5105L	SPPSS Laboratory	1	PHC 6150	Public Health Policy Analysis and Formulation	3
Elective Courses: (21)			PHC 6530	Principles of Maternal and Child Health	3
PHC 5409	Public Health Behavior Change Theory and Practice	3	PHC 6538	Genetic Issues in Public Health	3
PHC 5415	Public Health in Minority and Urban Populations	3	PHC 6907	Independent Study in Public Health	1-3
PHC 6112	Health Risk Appraisal	3	PHC 7702	Advanced Measurements in Public Health	3
PHC 6160	Public Health Budgeting and Financial Management	3	Capstone Course: (3)		
PHC 6501	Health Promotion Communication Theory and Design	3	PHC 6945	Supervised Field Placement	3
PHC 6502	Health Promotion in the Workplace	3	PHC 6977	Master's Research Project in Public Health	3
PHC 6503	Community Organization for Health Promotion	3	PHC 6xxx	Masters Thesis	1-6
PHC 6504	Introduction to Health Education and Wellness	3	Course Descriptions		
PHC 6580	Contemporary Issues in Health Promotion	3	Definition of Prefix		
PHC 6585	Health Promotion in Clinical Settings	3	PHC - Public Health		
PHC 6589	Health Promotion in Institutional Settings	3	PHC 5009 AIDS: Contemporary Issues (3). This course introduces the contemporary social and public health issues associated with the AIDS epidemic and the policies and programs designed to prevent HIV transmission.		
PHC 6750	Program Development and Evaluation in Health Promotion	3	PHC 5409 Public Health Behavior Change Theory and Practice (3). A course for health promotion practitioners who lack formal training in behavior change foundations and strategies. The course emphasizes applications to practical development of health promotion interventions.		
PHC 5009	AIDS: Contemporary Issues	3	PHC 5415 Public Health in Minority/Urban Population (3). Covers the scope of Public Health Issues related to minority and urban populations with an emphasis on health care status, utilization of the health care system and expenditures.		
PHC 6012	Current Research in Epidemiology	3	PHC 5XXX Public Health on the Internet (1). An extensive examination of public health topics on the internet, subject varies each semester. Theoretical, conceptual, and analytical tools for electronic searching. Prerequisites: Microsoft Windows Literacy.		
PHC 6014	Behavioral Epidemiology	3	PHC 6000 Introduction to Public Health Epidemiology (3). Introduction to the study of the distribution,		
PHC 6015	Epidemiological Methods	3	determinants, and measurement of health and disease in populations, including study methods and their application to specific diseases and conditions. (F,S)		
PHC 6016	Social Epidemiology, Health Promotion and Policy	3	PHC 6001 Environmental and Occupational Epidemiology (3). This course covers outbreaks; cluster analysis; cross-sectional, case-control, cohort, ecological and time series designs; surveillance programs; environmental cancer; reproductive hazards, biological monitoring and biomarkers. Prerequisite: PHC 6315 and PHC 6000.		
PHC 6539	Health Demography	3	PHC 6004 Injury Epidemiology and Prevention (3). Analyzes the impact and extent of injuries as a public health problem. Issues of prevention, sources of data, environment, social and occupational aspects are included in an epidemiological approach. Prerequisite: PHC 6000. (SS)		
PHC 6009	AIDS Epidemiology and Control	3	PHC 6009 AIDS Epidemiology and Control (3). Reviews the epidemiology, virology, immunology, and clinical aspects of HIV, and also examines its impact upon risk groups and the responses of society to the epidemic. (S)		
PHC 6001	Environmental and Occupational Epidemiology	3	PHC 6012 Current Research in Epidemiology (3). This course will examine current areas of research in epidemiology and bring students into contact with researchers in various fields. Prerequisite: PHC 6000, PHC 6050. (S)		
PHC 6004	Injury Epidemiology and Prevention	3	PHC 6014 Behavioral Epidemiology (3). This course will examine human behaviors as determinants of health and disease, methods of exploring these relationships, and ways of altering risk behaviors. Prerequisite: PHC 6000.		
PHC 6307	Environmental Health Monitoring	3	PHC 6015 Epidemiological Methods (3). This course will examine epidemiological methods emphasizing the actual conduct of studies. Students will undertake a simulated research project. Prerequisite: PHC 6000, PHC 6050. (S)		
PHC 6311	Environmental Health Risk Assessment	3	PHC 6016 Social Epidemiology, Health Promotion and Policy (3). Explores the epidemiological aspects of health and medical care of the poor and disadvantaged population groups. Emphasis on the relationship of organization and delivery of health care, including health promotion, prevention, and related topics. Prerequisite: PHC 6000. (F)		
PHC 6355	Occupational Health and Safety	3	PHC 6050 Public Health Statistics (3). An introduction to the basic		
PHC 6356	Fundamentals of Industrial Hygiene	3			

principles of inferential statistics as applied to public health. The course includes those components of biometry routinely used in public health. Prerequisite: Undergraduate course in statistics. Open only to graduate students in Public Health. (F,S)

PHC 6111 Primary Health Care Strategies (3). Examines the rationale, planning and implementation of community-oriented primary health care. Emphasizes primary care as an integral part of the health care system and an essential part of public health. Prerequisites: PHC 6500 or Permission of the instructor. (SS)

PHC 6112 Health Risk Appraisal (3). Health promotion technique designed for identifying personal health risks and the use of these methodologies for inducing behavioral change. Evaluation of the effectiveness of various health appraisal instruments. Prerequisite: PHC 6000 & PHC 6050. (F)

PHC 6115 International Public Health (3). This course describes international differences in the distribution and determinants of disease and health, and examines interventions aimed at improving health status. (F)

PHC 6150 Public Health Policy Analysis and Formulation (3). Strategies for formulating public health policy; political processes; resource allocation, organization, and participation. Examination of current policy issues and efforts to effect change. (F)

PHC 6160 Public Health Budgeting and Financial Management (3). This course is designed for public health practitioners. Emphasis will be placed on models necessary to develop operational budgets in the public sector of health care and to anticipate financial anomalies.

PHC 6307 Environmental Health Monitoring (3). Surveys available mechanisms utilized by public health and environmental agencies to monitor levels of pollution, environmental quality, and change in environmental conditions which impact human health. Prerequisite: PHC 6000, PHC 6050, PHC 6315. (SS)

PHC 6311 Environmental Health Risk Assessment (3). This course explores environmental health care management problems associated with risk to the population from exposure to particular agents and conditions.

Emphasizes practical problems in risk estimation through the case method approach. Prerequisite: PHC 6315. (S)

PHC 6315 Public Health and Environmental Management (3). An overview of public health philosophy and government organization in the provision of official agency, environmental, and preventive medicine services, with particular emphasis on the regulatory and surveillance responsibilities authorized in the public sector. (F,S)

PHC 6355 Occupational Health and Safety (3). The course covers recognition of occupational hazards, injuries and diseases and the principles of occupational safety including safety regulations and standards and models of accident causation. Prerequisite: PHC 6315.

PHC 6356 Fundamentals of Industrial Hygiene (3). The course covers recognition, evaluation, and control of chemical biological and physical agents in the workplace; application to exposure, control measures, and standard setting procedures. Prerequisite: PHC 6315.

PHC 6410 Health Behavior and Public Health (3). The overall goal of this course is to introduce the student to the learning and behavioral science theories that provide the framework for the practice of health promotion and public health. Prerequisites: Public Health major or Permission of the instructor. (F,S)

PHC 6425 Legal and Regulatory Aspects of Environmental Health (3). The application of law as it relates to the environment and human health. Legal process and rule-making; cost-benefit analysis; judicial review; evidentiary problems; and other elements of environmental law are emphasized. Prerequisites: PHC 6000, PHC 6050 and PHC 6315. (S)

PHC 6443 Ethical Issues in Public Health (3). The role of Bioethics on Public Health Issues

PHC 6500 Foundations of Public Health Practice (3). Philosophy, nature, and scope of public health; organization and administration; principles of disease prevention and health promotion; current issues and trends; socioeconomic and political forces. Prerequisite: Public Health major or Permission of the instructor. (F,S,SS)

PHC 6501 Health Promotion Communication Theory and Design (3).

Theory, design, and implementation of health education communication utilized in reaching the public. Emphasis on the critical analysis of the communication processes; group techniques and media methods; and the consultation process. Prerequisite: Health Promotion Concentration or by Permission of the instructor. (F)

PHC 6502 Health Promotion in the Workplace (3). Emphasis is on program design, management, and evaluation of health promotion in industry. Current issues on health assessment, fitness, and emotional stress in the workplace will be considered. Prerequisite: Health Promotion Concentration or Permission of the instructor. (SS)

PHC 6503 Community Organization for Health Promotion (3). Emphasis is on the diagnosis of community health problems and various organizational strategies utilized for effective solution. Review and analysis of community organization process; resources; and the role of health promotion specialist. Prerequisite: Health Promotion Concentration or Permission of the instructor. (F)

PHC 6504 Introduction to Public Health Education and Wellness (3). Primarily intended to introduce graduate students to concepts and principles underlying the use of Public Health and Behavioral Strategies to positively influence behavioral patterns. Prerequisites: Public Health major or Permission of the instructor.

PHC 6520 Public Health Aspects of Foodborne Diseases (3). Examines the scope of the foodborne disease problem; factors that contribute to outbreak of foodborne disease; strategies for the prevention and control of these diseases are explored. Prerequisites: PHC 6000, PHC 6050, and PHC 6315. (F)

PHC 6530 Principles of Maternal and Child Health (3). Covers the scope of the field of maternal and child health with emphasis on the needs of infants, children, youth, women and families in the reproductive cycle and programs designed to meet these needs. Prerequisite: Public Health major or Permission of the instructor. (S)

PHC 6538 Genetic Issues in Public Health (3). Genetic issues and topics that impact on Public Health will be covered such as HW gene frequencies and HUGO. A public health perspective with a field of study.

PHC 6539 Health Demography (3).

The study of basic population structure, composition, trends and relationship to health status. Implications of demographic trends, policies for public health; population growth, immigration, infant mortality. Prerequisites: PHC 6050 or Permission of the instructor. (S)

PHC 6580 Contemporary Issues in Health Promotion (3).

Current problems and findings in health promotion content areas such as smoking, alcohol, and drug misuse, family health, safety, physical fitness, communicable and chronic diseases will be discussed. Prerequisites: PHC 6000 and PHC 6050. (SS)

PHC 6585 Health Promotion in Clinical Settings (3).

Analysis of the role, methods, and techniques of health promotion and patient education pertaining to hospitals, clinics and other ambulatory health services. Prerequisites: PHC 6000 and PHC 6050. (S)

PHC 6589 Health Promotion in Institutional Settings (3).

This course will investigate the role, methods and techniques used to promote health in diverse settings such as clinic and community agencies, schools, universities and workplaces.

PHC 6715 Survey Research in Public Health (3).

Health survey design, implementation and analysis, and interpretation of data. Emphasis on practical aspects of conducting health surveys. Study of existing health surveys. Prerequisites: PHC 6000 and PHC 6050. (F,S)

PHC 6750 Program Development and Evaluation in Health Promotion (3).

Principles and procedures in health promotion program development and evaluation. Emphasis on needs assessment, planning models, evaluation designs, data collection, analysis and reporting. Prerequisites: PHC 6000 and PHC 6050. (F)

PHC 6907 Independent Study: Public Health (1-3).

Allows student investigations of special topics and issues utilizing literature searches, analysis, or active performance in public health settings under the direction of faculty supervision. Prerequisite: Permission of the faculty advisor.

PHC 6945 Supervised Field Experience in Public Health (3).

Preceptor guided experience in a public health

organization. Experience will include orientation; observation; and participation in the aspects of the agency's program. Prerequisite: Permission of the faculty advisor.

PHC 6977 Master's Research Project (3).

This course provides the student with an opportunity to explore in depth a specific topic or issue of interest in public health.

PHC 6xxx Masters Thesis (1-6).

Supervised research on an original public health problem or topic submitted in partial fulfillment of master's degree requirement. Prerequisite: Permission of major professor. (F,S,SS)

PHC 6XXX Environmental Occupational Toxicology (3).

Theory and practice of occupational and environmental toxicology; health effects of toxins in humans; principles of toxicology; toxicokinetics; and health effects of toxins on organ systems. Prerequisites: PHC 6315.

PHC 7702 Advanced Measurement in Public Health (3).

Advanced course in measurement and evaluation in public health. Computer applications for public health practice emphasized. Prerequisites: PHC 6050, PHC 6715, PHC 6750.

Graduate Certificate Program in Health Promotion

The Graduate Certificate Program seeks to provide graduate level instruction in health promotion to non-graduate-degreed practitioners. Students will gain a scientific foundation for designing, conducting, and evaluating health promotion programs in public health, while at the same time benefit from numerous opportunities for practical application. Online courses in Fall 2001.

Program Requirements

The Graduate Certificate Program requires completion of 15 graduate credits. The student must demonstrate proficiency in health promotion design, implementation, and evaluation. If students are proficient in any one area covered by the required courses, alternative courses may be selected. Substitution of courses must be approved by the advisor. A graduate statistics course (biostatistics, social statistics) is a prerequisite.

Students should consult with advisors since new courses are

frequently added, and some courses have prerequisites and enrollment stipulations.

Required Courses¹: (15)

PHC 6504	Introduction to Health Education and Wellness	3
PHC 6409	Public Health Behavior Change Theory and Practice	3
PHC 6501	Health Promotion Communication Theory and Design	3
PHC 6750	Program Development and Evaluation in Health Promotion	3
PHC 6589	Health Promotion in Institutional Settings	3

¹If students are proficient in any one area covered by the required courses, the following alternative courses may be substituted (6 credits maximum):

PHC 6112	Health Risk Appraisal	
PHC 7702	Advanced Measurement in Public Health	
PHC 6531L	Environmental Health Risk Assessment	
PHC 6004	Injury Epidemiology and Prevention	
PHC 6520	Public Health Aspects of Foodborne Diseases	
PHC 6580	Contemporary Issues in Health Promotion	
PHC 6530	Principles of Maternal and Child Health	
PHC 6016	Social Epidemiology, Health Promotion, and Policy	
PHC 5415	Public Health in Minority/Urban Populations	

Admission Requirements

Applicants must hold a bachelor's degree or equivalent from an accredited college or university.

Graduation (completion) Requirements

Completion of 15 graduate credits with an overall 'B' average.

Graduate Certificate Program in Environmental Health

The Graduate Certificate Program seeks to provide graduate level instruction in environmental health to non-graduate-degreed practitioners. Upon completion of the certificate program the student will be able to develop, implement, manage, and assess environmental and occupational contaminants programs for local, state and Federal regulatory agencies. The program has been developed to allow

working professionals in Public Health to expand or upgrade their skills and to provide incremental academic steps for individuals heading towards their first or second professional degree in environmental health sciences. Online courses in Fall 2001.

Program Requirements

The Graduate Certificate Program requires the completion of 18 graduate credits. The student must demonstrate proficiency in the identification and characterization of human and ecological exposures to environmental and occupational contaminants. Students who are proficient in any one area covered by the required courses may choose from selected alternative courses to complete their requirements.

Required Courses: (18)

PHC 6315	Public Health and Environmental Management
PHC 6355	Public Health and Occupational Health and Safety
PHC 6xxx	Environmental and Occupational Toxicology
PHC 6307	Environmental Health Monitoring and Laboratory
PHC 6xxx	Environmental and Occupational Epidemiology
PHC 6004	Injury Epidemiology and Violence Prevention

Admission Requirements

Applicants must hold a bachelor's degree or equivalent from an accredited college or university, and must have completed a prerequisite graduate course in biostatistics or social science statistics.

Graduation (completion) Requirements

Completion of 18 graduate credits with an overall 'B' average.

Communication Sciences and Disorders

Lemmieta G. McNeilly,
Associate Professor and
Chairperson

Donald R. Fuller, Associate Professor
Eliane Ramos, Assistant Professor

Communication Sciences and Disorders (CSD) is one of the departments in the School of Health. This department offers a master's degree program in speech language pathology. Additionally, seven undergraduate prerequisite courses are offered for interested applicants with a bachelor's degree from a different discipline. The unique focus of the CSD department is one of Cultural and Linguistic Diversity (CLD). The goal of the department is to educate CLD professionals to meet the needs of multicultural populations of individuals with Communication Disorders. Students matriculating in the program will benefit from the infusion of CLD throughout the curriculum. The program allows full time and part time enrollment. All degree requirements need to be completed within six years from the initial date of enrollment. Students will have opportunities to receive clinical education from a variety of clinical settings in the Miami Metropolitan area including hospitals, schools, private practices and community based clinics. They will also engage in research projects with faculty members. A description of the admission requirements and description of masters programs follow.

Admission Criteria

Applicants for admission to the master's degree program must meet the current FIU minimum standards for admission to graduate school.

1. 3.0 grade point average last 60 hours of undergraduate study or
2. GRE score of 1000 (verbal and quantitative sections combined)
3. TOEFL score of 550 for foreign students whose primary language is other than English

Additionally, the CSD department requires the following for admission to the graduate program:

1. FIU Graduate School application
2. Letter of interest summarizing interests
3. Two letters of recommendation from persons with knowledge of academic performance

4. Bachelor's degree in Communication Sciences and Disorders or completion of the 7 required prerequisite courses.

Requirements for students without a bachelor's degree in Communication Disorders

The department of Communication Sciences and Disorders requires an individual applying for the master's degree to hold a bachelor's degree in communication disorders or its equivalent. An applicant's undergraduate background influences the time necessary to complete the graduate degree, as there are 7 prerequisite courses required for entrance to the graduate program. Interested individuals should contact the department prior to completing an application for admission. The following courses or their equivalents are required for all interested persons without an undergraduate degree in communication disorders:

SPA 4112	Principles of Phonetics	3
SPA 4002	Survey of Communication Disorders	3
SPA 4101	Anatomy & Physiology of Speech & Hearing	3
SPA 4004	Introduction to Normal Speech & Language Development	3
SPA 4011	Speech & Hearing Science	3
SPA 4050	Clinical Management in Communication Disorders	3
SPA 4030	Introduction to Audiology	3

Master's Degree in Speech Language Pathology

The newly developed Master's degree in Speech-Language Pathology consists of 57-64 graduate hours. The specific credit hours required will depend upon student's selection of thesis versus non-thesis options. Nine credit hours of the program are in one of several specialization tracks that the student will select. Current tracks emphasize multicultural, educational, or gerontological aspects of communication disorders. Each track requires an additional credit hour earned for a research project related to the track selected by the applicant. The amount of time required to complete the program of study will vary. Full time enrollment will require four semesters and two summers to

complete the program of study. The maximum of six years for individuals enrolled part time is allowed. Student progress will be monitored each semester by departmental faculty.

Clinical practicum hours will be obtained in a variety of community settings. All students will take a minimum of three semesters of clinical practicum in three different settings. A minimum of 375 clock hours is required for graduation. Passage of comprehensive exams is required for degree completion.

The program of study provides students with theoretical and clinical education to develop the competencies needed to practice as a speech language pathologist. Upon completion of the master's degree, the graduate will have met all academic and practicum requirements for the certificate of clinical competence awarded by the American Speech-Language-Hearing Association. All students will be advised to take the PRAXIS (600 passing score) during the last year enrolled in the program. The Council of Academic Accreditation awarded candidacy status to the Master's Degree Program in Speech-Language Pathology effective Fall, 2000. Courses are taught by knowledgeable faculty with expertise in the areas of teaching.

Program of Study

Graduate Core Health Sciences Course (3)

HSC xxxx	Ethical & Legal Aspects of Health Care Professions	3
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Core Courses in Speech Language Pathology (50)

Practical Courses (8)

SPA 5132	Technological Innovations in Speech-Language-Hearing Sciences	2
SPA 5553	Differential Diagnosis of Communicative Disorders	3
SPA 5xxx	Research Methodology in Communication Disorders	3

Speech (20)

SPA 5401	Phonological Disorders	3
SPA 5225	Fluency Disorders	3
SPA 5216	Vocal and Velopharyngeal Disorders	3
SPA 5xxx	Neurological Bases of Communication Disorders	3

SPA 6232	Neuromotor Communication Disorders	3	DEP-6466	Cognitive Processes in Aging	3	evaluation and rehabilitation of individuals with speech, language, and hearing problems. A minimum of 25 clock hours of observation will be required. Prerequisite: Permission of the instructor.
SPA 6559	Augmentative/Alternative Communication	3	Medical Speech-Language Pathology Pediatrics			
SPA 6565	Dysphagia	2	PHC 6009	AIDS Epidemiology and Control		
Language (10)			PHC 6115	International Public Health		
SPA 5473	Cultural & Linguistic Diversity (CLD) in Communication Disorders	3	PHC 6530	Principles of Maternal & Child Health		SPA 4101 Anatomy and Physiology of Speech and Hearing (3). Anatomy and physiology of the speech and hearing mechanisms. Including nomenclature, respiration, phonation, articulation/resonance, the nervous system, and the auditory system. Prerequisite: Permission of the instructor.
SPA 5403	Language Learning in School Aged Children	2	PHC 6538	Genetic Issues in Public Health		
SPA 5404	Language Development & Disorders in Pre-school Children	2	SPA 6930	Master's Project		
SPA 6410	Aphasia and Related Disorders	3	SPA xxxx	Medical Speech Language Pathology		
Audiology (3)			SPA xxxx	Assessment & Intervention of Medically Fragile Children		SPA 4112 Principles of Phonetics (3). Principles of phonetics and their application to speech. Classification of speech sounds according to various systems including, but not limited to, manner and place, distinctive features, and phonological processes. Phonetic transcription utilizing the International Phonetic Alphabet. Prerequisite: Permission of the instructor.
SPA 6322	Aural Habilitation and Rehabilitation	3	SPA xxxx	Genetics & Communication Disorders in Pediatric Populations		
Clinical Practicum (9)			SPA xxxx	Medical Clinical Practicum (Advanced)		SPA 5132 Technological Innovations in Speech-Language Hearing Sciences (2). Technological innovations in speech language hearing sciences; lecture and laboratory exercises in the use of audio recordings, acoustic analysis and synthesis instrumentation. Prerequisite: Permission of the instructor.
SPA 5500	Basic Clinical Practicum	3	Course Descriptions			
SPA 5502	Intermediate Clinical Practicum	3	Definition of Prefixes			
SPA 6505	Advanced Clinical Practicum	3	SPA – Speech/Language Pathology			
Research [Thesis–6 credit] or Specialty Track [Non-Thesis–10 credits]			SPA 4002 Survey of Communication Disorders (3). Theory, evaluation, and therapeutic procedures with disorders of speech and language, including but not limited to, articulation disorders, childhood language disorders, aphasia, fluency disorders, and disorders of voice. Prerequisite: Permission of the instructor.			
Students are required to select a thesis or non-thesis options as partial fulfillment of the requirements for the master's degree. For the thesis option students will enroll in six hours of thesis (SPA 6971) credits. The non-thesis option (10 credits) mandates nine credits of coursework in one of the specialization tracks and one credit for a Master's Project (SPA 6930).						
Specialty Track Requirements						
Bilingual Communication Disorders						
SPA 6005	Assessment & Treatment of the Bilingual Child with Communication Disorders	3	SPA 4004 Introduction to Normal Speech and Language Development (3). The study of normal verbal speech and language acquisition. Prerequisite: Permission of the instructor.			
LIN 5720	Second Language Acquisition	3	SPA 4011 Speech and Hearing Science (3). Study of speech and hearing physiology, acoustic phonetics, and speech perception. Prerequisite: Permission of the instructor.			
SPA 6930	Master's Project	1	SPA 4030 Introduction to Audiology (3). Principles of auditory reception, the hearing mechanism; problems involved in measuring, evaluating, and conserving hearing. Prerequisite: Permission of the instructor.			
Educational			SPA 4050 Clinical Management in Communication Disorders (3). This course should be taken in the last semester of undergraduate prerequisite study. Clinical procedures for working in various practicum settings, using diagnostic and therapeutic techniques, writing behavioral objectives, procedures for report writing, and practical experience with clinicianmade and commercial materials. Provides directed clinical observation of the			
LIN 5732	Speech Errors and Linguistic Knowledge	3				SPA 5401 Phonological Disorders (3). An examination of normal and deviant articulatory acquisition and behavior. Presentation of major theoretical orientations and the therapeutic principles based upon them. Prerequisite: Permission of the instructor.
EEX 6019	Autism	3				SPA 5216 Vocal and Velopharyngeal Disorders (3). Study of etiology, symptoms, and treatment strategies for a variety of vocal and craniofacial disorders. Prerequisite: Permission of the instructor.
SPS 6199	Family School Consultation and Collaboration	3				SPA 5225 Fluency Disorders (3). Theories, assessment and treatment techniques for persons across the lifespan with fluency disorders. Prerequisite: Permission of the instructor.
Gerontological Aspects of Communication Disorders						
OTH 5613	Interdisciplinary Approach to Aging	3				SPA 5403 Language Learning in School-Aged Children (2). Overview and evaluation of the language skills of preschool and school aged children including meta-linguistic and discourse development. Prerequisite: Permission of the instructor.
DEP 6465	Psychology of Culture and Aging	3				

SPA 5404 Language Development and Disorders in Preschool Children (2). Presentation of the linguistic development in children ages 0-5 years as well as the delays and disorders associated with language. Prerequisite: Permission of Instructor.

SPA 5473 Cultural, Linguistic Diversity in Communication Disorders (3). A study of the relationship between culture and communication with application to assessment and intervention. Prerequisite: Permission of the instructor.

SPA 5500 Basic Clinical Practicum (3). Supervised practice with representative speech and language problems in the school settings. Prerequisite: Permission of the instructor.

SPA 5502 Intermediate Clinical Practicum (3). Supervised practice with communication problems in outpatient settings, private practices, rehabilitation. Prerequisite: Permission of the instructor.

SPA 5553 Differential Diagnosis of Communicative Disorders (3) The administration, evaluation and reporting of diagnostic tests and procedures used in assessment of speech and language disorders. Prerequisite: Permission of the instructor.

SPA 5XXX Ethical and Legal Aspects of Health Care Professions (3). Legal and ethical issues of appropriate practice in the healthcare profession will be addressed in detail, relative to multicultural populations. Prerequisite: Permission of Instructor.

SPA 5XXX Neurological Bases of Communication (3). The anatomical and physiological aspects of the central and peripheral nervous system as they pertain to communication acquisition and disorders. Prerequisite: Permission of Instructor.

SPA 5XXX Research Methodology in Communication Disorders (3). Research design, statistical analysis (descriptive and inferential) and dissemination of experimental data, with an emphasis on clinical research. Legal/ethical and cultural consideration in research design and implementation will also be addressed. Prerequisite: Permission of Instructor.

SPA 6005 Assessment & Treatment of the Bilingual Child with Communication Disorders (3). Assessment and treatment of normal

and atypical language development across cultures. Prerequisite: Permission of the instructor.

SPA 6232 Neuromotor Communication Disorders (3). A study of the medical, physical, occupational, speech, language, and hearing problems of the neuromotorically impaired client. Therapy techniques are reviewed and evaluated. Prerequisite: Permission of the instructor.

SPA 6322 Aural Habilitation and Rehabilitation (3). Provide information and strategies for aural habilitation intervention with hearing impaired children. Includes techniques of speech reading, auditory training and language for the hearing impaired. Prerequisite: Permission of the instructor.

SPA 6406 Bilingual Language Acquisition (3). Development of normal atypical language in speakers of other languages. Prerequisite: Permission of the instructor.

SPA 6410 Aphasia and Related Disorders (3). Consideration of the neurological and psychological aspects of aphasia and related approaches are discussed and evaluated. Prerequisite: Permission of the instructor.

SPA 6505 Advanced Clinical Practicum (3). Supervised practice with severe communication problems in area hospitals and longterm care facilities. Prerequisite: Permission of the instructor.

SPA 6559 Augmentative/Alternative Communication (3). Assessment and intervention strategies and technology for individuals with severe communication impairments. Prerequisite: Permission of the instructor.

SPA 6565 Dysphagia (2). Information and training in the evaluation and treatment of swallowing disorders. Prerequisite: Permission of the instructor.

SPA 6930 Master's Project (1-6). This course provides the student with an opportunity to explore in-depth a specific topic of interest in speech pathology. Prerequisite: Permission of the instructor.

SPA 6971 Master's Thesis (1-6). Supervised research on an original research project submitted in partial fulfillment of the Master's degree requirement. Prerequisite: Permission of the instructor.

SPA XXXX Medical Speech-Language Pathology (3). Designed for grad students to work in medical setting. Provides specific info to conduct assessments of swallowing, speech & language skills of patients across varied medical settings. Overview of medical terminology & abbrev., med conditions associated with communication disorders, pharmacological aspects covered.

SPA XXXX Assessment & Intervention of Medically Fragile Children (3). Course provides an overview of the communication disorders and related issues found in children with medically complex conditions.

SPA XXXX Genetics & Communication Disorders in Pediatric Populations (3). Students will learn about the core clinical competencies in genetics that apply to the SLP profession.

SPA XXXX Medical Clinical Practicum (Advanced) (3). Course will allow students the opportunity to engage in clinical practicum experiences at interdisciplinary medical settings with pediatric populations.

School of Nursing

Grossman, Divina, Ph.D., RN,
ARNP, CS, FAAN *Director and
Professor, Nursing*

Blais, Kathleen, Ed.D., RN, *Associate
Professor*

Conners, Veronica, Ed.D., Ph.D., RN,
Professor

Fairchild, Susan, Ed.D., RN, CCRN,
CNO, CS, *Associate Professor*

Freeman, Edward, Ph.D., ARNP
Professor, Nursing

Friedemann, Marie-Luise, Ph.D.,
RN, CS, *Associate Professor,
Nursing*

Galindo-Cioco, Daisy, Ph.D.,
ARNP, *Associate Professor*

Granville, Mirta, MSN, FNP, ARNP,
Clinical Assistant Professor

Lizardo, Maria Lourdes, Ed.D.,
ARNP, *Lecturer, Nursing*

Lobar, Sandra, Ph.D., ARNP, PNP,
Associate Professor, Nursing

Lowe, John, Ph.D., RN, *Assistant
Professor*

McDonough, John, Ed.D., ARNP,
CRNA, *Clinical Professor*

Nield-Anderson, Leslie, Ph.D., RN,
CS, *Associate Professor*

Phillips, Suzanne, Ed. D., ARNP,
Associate Professor, Nursing

Porter, Luz, Ph. D., ARNP, *Professor,*

The School offers a program of study leading to the Master of Science in Nursing (MSN) degree to prepare qualified professional nurses for advanced nursing roles in the care of adults, children, and families. The program offers clinical tracks in adult health nursing, psychiatric-mental health nursing, family health nursing, child health nursing, and anesthesiology nursing. The design of the program allows for the development of the blended nurse practitioner and clinical nurse specialist role, or the nurse anesthetist role.

Throughout the curriculum, students are guided in the process of self-development to pursue excellence in professional and scholarly endeavors. The program allows flexibility within the basic curricular structure through individualized learning experiences, electives, thesis, and the opportunity to investigate an area of interest in advanced study.

The curriculum model allows students to enroll on a full-time or part-time basis. The duration for the individual student study plan is determined in consultation with a faculty adviser and is based on the

student's background and goals. The program can be completed in four semesters of full-time study for the AHN, CHN, and PMHN tracks averaging 9-12 credit hours per semester. The FHN track can be completed in five semesters, ranging from 6-12 credits per term; the AN track requires seven semesters (full time only), varying from 7-16 hours per term. Part-time study can be completed in a variable time but not to exceed six years.

Program Objectives

1. Provide comprehensive, specialized quality care to clients in various settings, incorporating theories and advanced knowledge into nursing practice.

2. Utilize critical thinking, therapeutic communication and appropriate teaching, management, consultative, and advanced clinical skills in the exercise of professional responsibilities.

3. Integrate developmental, cultural, spiritual, physiological, and psychosocial concepts in advanced professional role performance.

4. Investigate clinical problems and test theory, contributing to the theoretical basis of nursing and the specialty area.

5. Function as a leader and change agent in the health care and professional arena, enhancing improved delivery of health care and influencing health policy.

6. Demonstrate leadership in the development and implementation of professional standards and conduct.

Graduates are qualified to apply for ARNP licensure in Florida and are prepared to apply for American Nurses Credentialing Center (ANCC) certification as an advanced nurse practitioner or a clinical nurse specialist in the chosen specialty area of adult health, child health or psychiatric-mental health nursing.

Admission Requirements

The applicant must:

1. Meet the admission requirements for graduate education at Florida International University, that is, a 'B' average (3.00) in upper level work, OR a combined score (verbal and quantitative) of 1000 on the Graduate Record Exam (GRE).

2. Have completed a baccalaureate degree in nursing which is accredited

by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, New York 10006 or the Commission on Collegiate Nursing Education (CCNE). Applicants with a baccalaureate degree from nursing programs without NLNAC or CCNE accreditation will be considered on an individual basis. Applicants to the MSN Program in Anesthesiology Nursing (AN) who have a non-nursing baccalaureate are eligible for admission through the MSN bridge program. Contact the AN Coordinator for specific details.

3. Have a GPA of at least 3.00 (B) in upper level work AND a combined verbal and quantitative score of no less than 800 on the GRE.

4. Have evidence of a current RN licensure in Florida.

5. Have at least one year clinical nursing experience as an RN. For AN applicants, this experience must be in critical care.

6. Have completed introductory courses in statistics (3 credits), and basic health assessment (3 credits).

7. Submit evidence of basic computer application (word processing) skills.

8. Have a faculty interview.

9. Provide the following:

a. Statement of philosophy of nursing and professional goals.

b. Letters of reference from: 1) a previous nursing faculty; 2) a current immediate supervisor; and 3) a co-worker.

10. For international students (graduates of foreign nursing schools) only:

a. TOEFL score of at least 550 if not licensed as a registered nurse (RN).

b. CGFNS certification or Florida RN license.

Application Process

Applicants need to complete the following steps in order to be considered for admission:

1. Complete two application forms as indicated and return to the appropriate offices to avoid unnecessary delay in the review process.

a. Application for Admission to Graduate Studies - To be returned with a \$20.00 non-refundable service fee to: Office of Admissions, Florida International University, University Park, Charles E. Perry Building, Room 140, Miami, Florida, 33199.

b. Application for Admission to the Master of Science in Nursing Program-To be returned to: The Office of Recruitment, Enrollment, and Student Services, FIU School of Nursing, Biscayne Bay Campus, ACII-200, North Miami, Florida 33181.

2. Request from each college or university attended to send an official transcript of records directly to the FIU Office of Admissions, University Park, Charles E. Perry Building, Room 140, Miami, Florida, 33199

3. Send three reference letters directly to the Office of Recruitment, Enrollment, and Student Services, School of Nursing, Florida International University, Biscayne Bay Campus, ACII 200, North Miami, Florida 33181. For AN applicants, the SON application materials must include a complete, comprehensive, and current curriculum vitae.

4. Participate in an interview with a faculty member teaching in the graduate program. The interview is for the purpose of verifying application materials, reviewing admission criteria, identifying deficiencies and transferable credits, as well as projecting a tentative plan of study. The applicant should take an active role in the interview process to be informed about the program and the basis for the admission criteria.

Degree Requirements

1. AHN, CHN, or PMHN Track: completion of 42 semester credit hours. Minimum of 36 hours in nursing and 3 hours of non-nursing electives. The non-nursing electives are restricted to supporting courses for the specialty area.

2. FHN Track: completion of 52 semester credit hours. Minimum of 49 hours in nursing and 3 hours of non-nursing electives.

3. AN Track: completion of 71 semester credit hours as specified.

4. Completion of a thesis (6 hours) or a Master's paper (3 hours). Students electing a Master's paper must complete an additional three hours of cognate courses(s).

5. Achievement of an overall cumulative GPA of 3.0 or above. A cumulative GPA of less than 3.0 will place the student on probation for one semester, and she/he may be subject to dismissal if the 3.0 GPA requirement is not met after the probationary period.

6. Removal of all conditions, deficiencies, and incomplete grades. Credit hours for courses in which the grade is "C" or below will not count toward

satisfying graduate degree requirements.

Students are expected to register for courses with letter grades. Electives may be taken as pass/fail subject to the approval of the adviser.

Master of Science in Nursing

Curriculum

Graduate Nursing Core (9)

NGR 5110	Theories in Nursing	3
NGR 5604	Culture and Advanced Nursing Practice	3
NGR 5810	Research Methods in Nursing	3

Advanced Practice Nursing Core (9)

NGR 5035C	Advanced Client Assessment	3
NGR 5141	Pathophysiological Basis of ANP	3
NGR 6192	Pharmacological Concepts in ANP	3

Clinical Nursing Specialty

Advanced Adult Health Nursing (12)

NGR 6201	Advanced Adult Health Nursing I	3
NGR 6210L	Advanced Adult Health Nursing Practice I	3
NGR 6202	Advanced Adult Health Nursing II	3
NGR 6211L	Advanced Adult Health Nursing Practice II	3

Advanced Child Health Nursing (12)

NGR 6300	Advanced Child Health Nursing I	3
NGR 6301L	Advanced Child Health Nursing Practice I	3
NGR 6303	Advanced Child Health Nursing II	3
NGR 6302L	Advanced Child Health Nursing Practice II	3

Advanced Psychiatric-Mental Health Nursing (12)

NGR 6502	Advanced Psychiatric-Mental Health Nursing I	3
NGR 6503L	Advanced Psychiatric-Mental Health Nursing Practice I	3
NGR 6504	Advanced Psychiatric-Mental Health Nursing II	3
NGR 6507L	Advanced Psychiatric-Mental Health Nursing Practice II	3

Advanced Family Health Nursing (16)

NGR 6601	Advanced Family Health Nursing I	4
NGR 6601L	Advanced Family Health Nursing Practice I	4
NGR 6602	Advanced Family Health Nursing II	4
NGR 6602L	Advanced Family Health Nursing Practice II	4

*Advanced Family Health Nursing Sub-Specialty (6)

NGR 6936	Special Topics in Nursing	6
(Intensive Practicum in Specialized Area: Select One)		

*Management of Persons with HIV/AIDS

*Management of Survivors of Domestic Violence

*Management of the Elderly

Anesthesiology Nursing (44)

NGR 6xxx	Principles of Anesthesiology Nursing I	2
NGR 6xxx	Chemistry and Physics of Anesthesiology Nursing I	2
NGR 6xxx	Pharmacology of Anesthesiology Nursing I	1
NGR 6xxx	Anesthesiology Nursing Practicum I	1
NGR 6xxx	Advanced Bioscience for Anesthesiology Nursing I	3
NGR 6xxx	Principles of Anesthesiology Nursing II	3
NGR 6xxx	Pharmacology of Anesthesiology Nursing II	2
NGR 6xxx	Regional Anesthesia	2
NGR 6xxx	Chemistry and Physics of Anesthesiology Nursing II	1
NGR 6xxx	Anesthesiology Nursing Practicum II	2
NGR 6xxx	Principles of Anesthesiology Nursing III	2
NGR 6xxx	Anesthesiology Nursing Practicum III	3
NGR 6xxx	Advanced Bioscience for Anesthesiology Nursing II	3
NGR 6xxx	Anesthesiology Nursing Practicum IV	4
NGR 6xxx	Principles of Anesthesiology Nursing IV	2
NGR 6xxx	Anesthesiology Nursing Practicum V	4
NGR 6xxx	Anesthesiology Nursing Practicum VI	4

NGR 6xxx Anesthesiology Nursing
Practicum VII 4

Role Development (7)**Advanced Practice Nurse**

NGR Elective 3
NGR 6704L Role Synthesis in
Advanced Nursing
Practice 4

Role Development**Nurse Anesthetist (6)**

NGR 6xxx Technology in
Anesthesiology Nursing I
NGR 6xxx Professional Aspects of
Anesthesiology Nursing I
NGR 6xxx Advanced Anesthesiology
Nursing Seminar 4

Nursing Administration

NGR 6712 Role Synthesis in
Nursing Administration 4
NGR 6727 Issues & Strategies
of Nursing
Administration 3

Nursing Education

NGR 6710 Role Synthesis on
Nursing Education 4
NGR 6713 Curriculum Develop-
ment in Nursing 3

Research (6)**Master's Thesis Option**

NGR 6970 MSN Thesis I 3
NGR 6971 MSN Thesis II 3

Master's Paper Option

NGR 6970 MSN Thesis I
(Research Project) 3

Cognate Electives 3
Elective 2

**Sample Program Progression
Plan (Full-Time Study)**

Specialty Track: Adult Health Nursing
Research Option: Master's Thesis

Semester I (12)

NGR 5035C Advanced Client
Assessment 3
NGR 5110 Theories in Nursing 3
NGR 5141 Pathophysiologic Basis
of Advanced Nursing
Practice 3

NGR 5604 Culture and Advanced
Nursing Practice 3

Semester II (12)

NGR 5810 Research Methods in
Nursing 3
NGR 6192 Pharmacological
Concepts in Advanced
Nursing Practice 3
NGR 6201 Advanced Adult Health
Nursing I 3
NGR 6210L Advanced Adult Health
Nursing Practice I 3

Semester III (11)

NGR 6202 Advanced Adult Health
Nursing II 3
NGR 6211L Advanced Adult Health
Nursing Practice II 3
NGR 6970 Thesis I 3
Elective 2

Semester IV (7)

NGR 6704L Role Synthesis in
Advanced Nursing
Practice 4
NGR 6971 Master's Thesis II 3

**Sample Program Progression
Plan (Part-Time Study)**

Specialty Track: Adult Health Nursing
Research Option: Master's Thesis

Semester I (6)

NGR 5110 Theories in Nursing 3
NGR 5141 Pathophysiologic Basis
of Advanced Nursing
Practice 3

Semester II (6)

NGR 5035C Advance Client
Assessment 3
NGR 6192 Pharmacological
Concepts in Advanced
Nursing Practice 3

Semester III (6)

NGR 5604 Culture and Advanced
Nursing Practice 3
NGR 5810 Research methods in
Nursing 3

Semester IV (6)

NGR 6201 Advanced Adult Health
Nursing I 3
NGR 6210L Advanced Adult Health
Nursing Practice I 3

Semester V (9)

NGR 6202 Advanced Adult Health
Nursing II 3
NGR 6211L Advanced Adult Health
Nursing Practice II 3
NGR 6970 Thesis I 3

Semester VI (5)

NGR 6971 Thesis II 3
Elective 2

Semester VII (4)

NGR 6704L Role Synthesis in Adult
Nursing Practice 4

**Post-Master's Nurse
Practitioner Certificate
Program**

This Post-Master's Nurse Practitioner
Certificate Program is built upon a
recent Master's degree in nursing with
a clinical nursing major such as adult
health nursing, child health nursing, or
psychiatric/mental health nursing.
Transcripts of previous work are
reviewed by the Graduate Nursing

Program Associate Director and a
program of study is developed.

Nurse Practitioner Core (9)

NGR 5035C Advanced Client
Assessment 3
NGR 5141 Pathophysiologic Basis
of Adult Nursing
Pharmacological
Concepts in Advanced
Nursing Practice 3
Practice 3

MSN Core (3)

NGR 5604 Culture and Advanced
Nursing Practice 3

Primary Core (6-8)

NGR 6601 Advanced Family
Health Nursing I 4
NGR 6601L Advanced Family
Health Nursing Practice
I 4

Role Development (4)

NGR 6704L Role Synthesis in
Advanced Nursing
Practice 4

Admission Requirements:

1. A Master of Science in Nursing (MSN) degree with a clinical nursing specialty from an NLN accredited program.
2. A graduate (MSN) grade point average (GPA) of 3.0 or above.
3. Graduate courses in nursing theory (3 credits) and research (3 credits).
4. State of Florida RN licensure. A photocopy of the license must be submitted along with student's application to the Post Master's Nurse Practitioner Certificate Program.
5. Pre-admission interview with a member of the Graduate Nursing Admissions Committee.
6. Two letters of recommendation.

Admission Procedure

1. File application for admission directly to the School of Nursing Graduate Program Office prior to registration.
2. Submit official transcripts of all previous college work, both graduate and undergraduate.
3. If applicant has not previously attended Florida International University, she/he must pay a non-refundable application fee, payable to FIU.
4. Application file should be completed at least two weeks before registration. Qualified applicants will be admitted as non-degree seeking students.

Course Descriptions**Definition of Prefixes**

NGR - Nursing Graduate

NGR 5035C* Advanced Client Assessment (3). Refinement of health assessment skills fundamental to advanced nursing practice. Emphasis is on critical thinking and diagnostic reasoning required in accurate health assessments, differentiating normal and abnormal. Prerequisites: MSN admission; basic health assessment (3 credits), NGR 5141.

NGR 5110 Theories in Nursing (3). Analysis, evaluation, and application of nursing theories to practice, research, education and administration. Prerequisites: Departmental permission, Graduate standing.

NGR 5135 Legal and Ethical Dimensions of Advanced Nursing Practice (3). Analysis of legal and ethical precepts and application to moral and legal dilemmas in advanced nursing practice focusing on the advocacy role in promoting rights of individuals and families. Prerequisite: Consent of instructor.

NGR 5136 International Nursing System/Advanced Nursing Practice (3). Comparative analysis of philosophical, legal, political, economic and social underpinnings of the nursing profession within the context of international developments and trends in the post-cold war era.

NGR 5141 Pathophysiologic Basis of Advanced Nursing Practice (3). Focuses on the pathophysiologic basis of clinical judgment and client management in advanced nursing practice. Prerequisite: Graduate standing and permission of the department.

NGR 5250 Physical Change and Healthy Aging (3). Primary health care and wellness with discussion and assessment of normal physiologic alterations and their relationship to common health concerns and medical problems of the elderly.

NGR 5480 Women and Health: A Nursing Perspective (3). Analysis of the unique health concerns of women across the life span. Emphasizes a multidisciplinary approach. Prerequisite: Graduate standing.

NGR 5604 Culture and Advanced Nursing Practice (3). Theoretical models explanatory of culture and behavior manifestation of cultural diversity. Focuses on multicultural nursing and methodology for nursing care throughout the life span. Prerequisite: Departmental permission.

NGR 5810 Research Methods in Nursing (3). Research methods and designs commonly used in nursing. Focuses on the research process as it is integrated through the interchange of theory, practice, and research. Prerequisites: Statistics, departmental permission and NGR 5110.

NGR 5871C Nursing Informatics: Computer Mediated Information Technology in Nursing (3). Introduction to principles/practices of computer/information technologies in nursing. Theoretical/applied aspects refined in hands-on lab. Prerequisites: Undergraduate statistics; Permission of the instructor.

NGR 5905 Independent Study in Nursing (1-10). Individually determined, research oriented, in-depth study of a nursing problem or clinical experience as approved by the faculty preceptor. Prerequisites: BSN, Permission of the instructor, and admission to a graduate program.

NGR 5936 Special Topics in Nursing (1-6). Group study of a specific topic or a limited number of related topics in nursing. Prerequisite: Must be a nursing student or Florida licensed RN.

NGR 6192 Pharmacological Concepts in Advanced Nursing Practice (3). Principles of advanced clinical pharmacology: development, control, action, physiologic response and therapies. Emphasizes commonly prescribed drugs and implications for Advanced Nursing Practice. Prerequisites: Graduate standing and departmental permit.

NGR 6201 Advanced/Adult Health Nursing I (3). Application of a conceptual model for advanced nursing practice focusing on adult clients in health and/or experiencing minimal-to-moderate alterations in adaptive responses to acute/ emergent illness. Prerequisites: NGR 5035C, NGR 5110, NGR 6192..

NGR 6202* Advanced Adult Health Nursing II (3). In-depth study of severe alterations in adaptive responses to chronic and acute multi-system illnesses. Refinement of practice models, integrating theories of nursing and related sciences. Prerequisite: NGR 6210L, NGR 5810 and NGR 5604.

NGR 6210L* Advanced Adult Health Nursing Practice I (3). Application of a conceptual model for advanced nursing practice focusing on adult clients in health and/or experiencing

minimal-to-moderate alterations in adaptive responses to acute/emergent illness. Corequisite: NGR 6201.

NGR 6211L* Advanced Adult Health Nursing Practice II (3). Advanced nursing practice with adult clients experiencing severe alteration in adaptive responses to chronic/acute multi-system illnesses, focusing on comprehensive application of the nursing process. Corequisite: NGR 6202.

NGR 6300 Advanced Child Health Nursing I (3). Development of a conceptual model for family-centered nursing of children, increasing the breadth and depth of students' theoretical foundation unique to the specialty area. Prerequisites: NGR 5110, NGR 5035, and NGR 6192.

NGR 6301L* Advanced Child Health Nursing Practice I (3). Application of a conceptual model for advanced nursing practice focusing on health states and adaptive alterations of children observed in primary care settings. Corequisite: NGR 6300.

NGR 6303 Advanced Child Health Nursing II (3). Extension and refinement of students' theoretic foundation focusing on family-centered care of children requiring high level technological care and/or multidimensional rehabilitation. Corequisites: NGR 6301L, NGR 5604, and NGR 5810.

NGR 6302L* Advanced Child Health Nursing Practice II (3). Application of a refined conceptual model for advanced nursing practice focusing on family-centered care of children requiring complex technological care and/or multidimensional rehabilitation. Corequisite: NGR 6303.

NGR 6333 Conceptual Issues in Nursing Management of Developmental Disabilities (3). Study of developmental theories, concepts and research findings in context of nursing model. Problems relevant to nursing intervention are examined through critique of pertinent literature. Corequisites: Graduate standing and permission of the department.

NGR 6502 Advanced Psychiatric Mental Health Nursing I (3). Theoretical frameworks for therapies and conceptualization of theory-based practice. Model development for understanding human processes in health and illness. Prerequisites: NGR 5035C, NGR 5110, and NGR 6192.

NGR 6503L¹ Advanced Psychiatric-Mental Health Nursing Practice I (3). Application of the nursing process use of current research in individual, group, and family therapies. Time-limited and extended-care therapies in collaboration with interdisciplinary team. Corequisite: NGR 6502.

NGR 6504 Advanced Psychiatric-Mental Health Nursing II (3). Development of inductive-deductive approach to theoretical understanding of person-environment patterns in multigenerational and multicultural population. Clinical specialist as therapist and manager. Prerequisites: NGR 6503L. Corequisite: NGR 5810 and NGR 5604.

NGR 6507L¹ Advanced Psychiatric-Mental Health Nursing Practice II (3). Application of the nursing process with clients presenting complex problems or in high risk situations. Collaborative process in therapy and consultation, and planned change. Corequisites: NGR 6504.

NGR 6601 Advanced Family Health Nursing I (4). Specialization, expansion, and advancement of research based knowledge and skills fundamental to the advanced practice of family nursing in primary care. Prerequisite: NGR 5310 and NGR 5035. Corequisite: NGR 5604 and NGR 6192.

NGR 6601L Advanced Family Health Nursing Practice I (4). Clinical management of common problems of children and selected diseases of adults in advanced nursing practice, the family being the unit of service. Blends the FNP/CNS role in delivery of primary health care. Corequisite: NGR 6601.

NGR 6602 Advanced Family Health Nursing II (4). Continuing development of specialized knowledge and skills critical to the blended FNP/CNS role in primary health care. Refinement of a nursing model of practice, the family as unit of service. Prerequisite: NGR 5604, NGR 5810, and NGR 5871C.

NGR 6602L Advanced Family Health Nursing Practice II (4). Clinical management of multisystem problems of children and adults commonly seen in primary care settings. Further development of the blended FNP/CNS role with the family as unit service. Corequisite: NRG 6602.

NGR² 6704L¹ Role Synthesis in Advanced Nursing Practice (4). Advanced nursing practice role with diverse client population. Role developed through contractual agreements in collaboration with faculty and mentors. Prerequisites: NGR 6211L or NGR 6507L or NGR 6302L.

NGR 6710^{*} Role Synthesis in Nursing Education (4). Application of teaching/learning theories to nursing and selected teaching/learning strategies. Demonstration of various teaching strategies. Teaching practicum. Prerequisites: NGR 6713 and NGR 6211L, or NGR 6507L, or NGR 6302L.

NGR 6712¹ Role Synthesis in Nursing Administration (4). Intensive practicum applying leadership, decision-making, management, and administration theories and concepts under the guidance of a nurse executive preceptor and supervising faculty. Prerequisites: NGR 6725 and NGR 6211L, or NGR 6507L or NGR 6302L.

NGR 6713 Curriculum Development in Nursing (3). Curriculum theory and its application in nursing education. Curriculum construction, implementation, and evaluation are discussed from theoretical, philosophical, historical, and current perspectives. Prerequisites: Graduate standing and departmental permission, NGR 5110.

NGR 6725 Issues and Strategies of Nursing Administration (3). Analysis of issues, principles, and concepts of nursing administration. Includes synthesis of behavioral and organizational theories with institutional goals in formulation of administrative strategies. Prerequisites: Graduate standing and departmental permission.

NGR 6726C Nursing Management and Continuous Quality Improvement (3). Role of nurse managers in developing and implementing continuous quality-improvement programs; implications of such programs on health care delivery. Includes role of middle management in personnel development and promoting nursing research in the clinical arena. Corequisites: NGR 6211L, or NGR 6507L, or NGR 6302L.

NGR 6970 Master's Thesis I (3). Refinement of research proposals focusing on methodology and pilot study. Hands-on experience on computerized data analysis. Completion of a research project for non-thesis students. Prerequisite: NGR

5810. Corequisites: NGR 6211L or NGR 6507L or NGR 6302L.

NGR 6971 Master's Thesis II (3). Implementation through completion of student's research thesis proposal. Prerequisite: NGR 6970.

NUR 5495 Women's Health Issues (3). This course is designed to acquaint the student with selected conditions impacting the health of women.

^{*}All students must provide evidence of personal professional liability insurance prior to registering for any clinical nursing courses.

School of Policy and Management

Gloria Deckard, *Interim Director*

The School of Policy and Management includes Criminal Justice, Health Services Administration, and Public Administration.

Criminal Justice

Joseph Byrnes, *Instructor*

Ellen G. Cohn, *Associate Professor*

Stewart D'Alessio, *Assistant Professor*

David Eitle, *Assistant Professor*

Scott Fingerhut, *Visiting Instructor*

Suman Kakar, *Associate Professor*

Jose A. Marques, *Associate Professor and Coordinator*

Ramiro Martinez, *Associate Professor*
Luis Salas, *Professor*

Harlan Sands, *Instructor*

Regina Shearn, *Associate Professor*

Robert Snow, *Associate Professor*

Lisa Stolzenberg, *Assistant Professor*

W. Clinton Terry, *Associate Professor*

James Vardalis, *Associate Professor*

Criminal Justice is an area of study dealing with the formal mechanisms of social control by which society exercises constraint over its members. The study of criminal justice is interdisciplinary. It involves law, the social and behavioral sciences, crime, the reaction of society to the crime problem, and the means utilized in treating it.

A variety of career opportunities are available in criminal justice at all levels of government and the private sector. Due to its interdisciplinary approach, the study of criminal justice fills the needs of students seeking careers in teaching, research, law, and within the various agencies of the criminal justice system.

Master of Science in Criminal Justice

The Master of Science degree program in Criminal Justice is a professional program designed to prepare students for management responsibilities in the criminal justice sector or public sector related activities.

The objectives of the master's program are:

1. To provide present and future criminal justice managers with the skills needed to function effectively in our ever-changing society.
2. To serve as a catalyst for interdisciplinary research and study of criminal justice and related problems.
3. To provide the criminal justice system with qualified students for

academic careers in administration, planning and analysis, and teaching in colleges and universities.

Students having a Bachelor's degree from an accredited institution and a minimum of a 3.0 GPA in all undergraduate upper division work, or a total score of 1000 on the Graduate Record Examination (verbal and quantitative) or a score of 500 on the Graduate Management Admission Test (GMAT), or a graduate degree from an accredited institution are eligible for admission to the program. All applicants must complete the GRE prior to full admission status. A maximum of 12 semester hours may be taken as a non-degree seeking student. This status does not guarantee admission to the degree program.

Degree Credit Requirements

The Master's degree in Criminal Justice requires 39 credit hours (13 courses). A maximum of six semester hours not included in another degree may be transferred into the program from an accredited institution, subject to the approval of the Program Coordinator.

All students entering the program are required to complete five courses (15 credits) of core requirements, four courses (12 credits) in a specialization, Law and Criminology or Justice Policy and Management, and four elective courses (12 credits). Thesis track students will select two courses (6 credits) of electives and two thesis courses (6 credits).

All elective courses must be earned at the graduate level (i.e., course numbers of 5000 and higher). Two courses (6 credits) may be taken outside of criminal justice, if no courses have been transferred into the program from another degree program. The Program Coordinator must approve all courses outside of criminal justice.

Effective for students entering the program August 1, 2000 or afterward, Advanced Standing provides students with an undergraduate degree in criminal justice or in a criminal justice-related field to waive two elective courses (6 credits). Students must apply for Advanced Standing upon admission to the Program. To apply for Advanced Standing, the student must complete an Advanced Standing Petition Form. The Program Coordina-

tor must approve the application for Advanced Standing.

Core Requirements

All candidates must take five core courses (15 credits).

CCJ 5479	Seminar in Administration of Justice	3
CCJ 6025	Theory in Administration of Justice	3
URS 6155	Quantitative Methods for Policy and Management	3
URS 6654	Applied Organization Theory and Behavior	3
URS 6806	Applied Research and Evaluation Techniques	3

Specialization

At least four courses (12 credits) must be taken in one of the following specializations:

Law and Criminology

Select two law courses:

CCJ 5288	Legal Issues for Criminal Justice Administration	3
CCJ 5237	Seminar in Criminal Law & Procedure	3
CCJ 5106	Law & Social Control	3
CCJ 5287	Legal Aspects of Corrections	3
CCJ 5285	Judicial Process & Policy	3

Select two criminology courses:

CCJ 5525	Seminar in Juvenile Delinquency	3
CCJ 5056	Historical Development of Criminology and Criminal Justice	3
CCJ 5038	Violent Crime and Criminal Behavior	3
CCJ 5040	Comparative Criminology and Criminal Justice Systems	3
CCJ 6665	Victimology and the Criminal Justice System	3

Justice Policy and Management

Select two public administration courses:

URS 6130	Human Resource Management and Policy	3
PAD 6053	Context of Public Administration	3
URS 6436	Professionalism and Ethics	3
PAD 6227	Public Budgeting Techniques	3

Select two criminal justice administration courses:

CCJ 5288	Legal Issues for Criminal Justice	
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	Administration	3
CCJ 5105	Police Organization, Behavior, and Administration	3
CCJ 5285	Judicial Process and Policy	3
CCJ 5445	Corrections and Correctional Management	3
CCJ 6456	Administration and Management of Criminal Justice Agencies	3

Electives

Thesis Track: Those selecting the thesis option are required to complete twelve (12) credit hours – six (6) credits of graduate level electives and six (6) credit hours (two courses) of thesis work.

Non-Thesis Track: The non-thesis option consists of twelve (12) credit hours of graduate level electives. Six credits may be from outside CCJ if no credits have been included in another degree program. These courses must be at the 5000 or 6000 level.

Thesis Track Procedures

Thesis track 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. Admission to candidacy should be completed before the student enrolls for the last 12 hours.

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 five core courses, four specialization courses, two thesis courses, and two electives. 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 five core courses, and four specialization courses, and four electives. A minimum GPA of 3.0 is required.

Course Descriptions

Definition of Prefixes

CCJ-Criminology and Criminal Justice;
URS-Urban Regional Studies.

CCJ 5038 Violent Crime & Criminal Behavior (3). This course deals with violent criminal behavior and the criminal justice system's reaction to violence.

CCJ 5040 Comparative Crime and Criminal Justice Systems (3). Analysis of comparative crime and criminal justice systems. Emphasis on understanding crime, criminology, and criminal justice systems from international and cross-cultural perspective. Focus on U.S., European, Asian and African criminal justice systems.

CCJ 5056 Historical Development of Criminology and Criminal Justice (3). The historical and philosophical background of criminal justice is presented as a basis for a more analytical understanding of the problems and prospects of criminal justice organization, management, and behavior.

CCJ 5105 Police Organization, Behavior, and Administration (3). Analysis of the organization and administration of police departments and their effects on police behavior.

CCJ 5106 Law and Social Control (3). This course examines law as an instrument of social control and the legal basis of criminal law. The legal limitations on criminal justice institutions and policies are also considered.

CCJ 5237 Seminar in Criminal Law and Procedure (3). This course examines substantive criminal law as a basis of social control in our country. Contemporary issues such as insanity defense, sexual assault, and abortion will be among the topics explored. Criminal procedure issues relating to the right to counsel, search and seizure and interrogation will also be examined.

CCJ 5285 Judicial Process and Policy (3). The functions, roles, and interactions of decision makers will be analyzed and evaluated. The policy decisions and processing of criminal cases within the judicial system will be examined.

CCJ 5287 Legal Aspects of Corrections (3). A study of the contemporary legal rights of convicted offenders, including the impact of litigation on

offenders, correctional agency personnel and operations, and other justice agencies. Case law and statutes will be reviewed within the context of the punishment and/or rehabilitation of the offender.

CCJ 5288 Legal Issues for Criminal Justice Administration (3). The course will focus on a basic understanding of administrative law and procedures in the American system. Topics will include the methods and limitations of the administrative process as it is developing in the American legal system.

CCJ 5347 Correctional Intervention Strategies (3). An overview and critical assessment of treatment and rehabilitation programs in corrections, including prisons, probation and parole, halfway houses, and pre-trial programs. Relevant research will be reviewed.

CCJ 5445 Corrections and Correctional Management (3). The course focuses on current critical issues and problems in the management of adjudicated offenders in correctional systems. The organization and administration of community and institutional corrections agencies will be reviewed and their performance analyzed.

CCJ 5479 Seminar in Administration of Justice (3). This course provides students with a critical understanding of the responses to crime. Emphasis is placed on theory and research relating to the effectiveness of the criminal justice system.

CCJ 5525 Seminar in Juvenile Delinquency (3). Focuses on the nature, scope, and causes of delinquency; considers problems of the assessment and measurement of delinquency. The philosophy, procedures, and effectiveness of the juvenile courts will be examined, including abuse, dependency, neglect, delinquency, and family law.

CCJ 5669 Minorities in Justice Administration (3). Focuses upon the disparity in outcomes for minority groups (i.e. racial/ethnic/sexual) across the criminal justice system, and on alternative explanations for those differences in outcome. Also, issues related to the hiring and promotion of minority groups who work in the criminal justice system will be discussed.

CCJ 5935 Special Topics (3). An intensive analysis of a particular topic in criminal justice not otherwise offered in the curriculum. Topics may change each term, but may include organized crime, white collar and political crime, victimology, ethics, terrorism, sentencing, information systems, and other topics based on student interest or current concern. May be repeated. Prerequisite: Graduate Standing.

CCJ 6025 Theory in Administration of Justice (3). The study of theoretical and research issues related to the nature and causes of crime and the administration of justice.

CCJ 6456 Administration and Management of Criminal Justice Agencies (3). An examination of the criminal justice system from the perspective of administrative and management theory. Emphasis is upon the identification of organizational and administrative problems and their solutions.

CCJ 6477 Seminar in Information Systems (3). An advanced seminar in the survey and application of electronic data in the criminal justice system. Prerequisite: Permission of the instructor.

CCJ 6665 Victimology and the Criminal Justice System (3). An examination of the relationship of victims and offenders and the manner in which the criminal justice system responds to victims of crime.

CCJ 6716 Planning and Program Evaluation (3). A systematic review of the problems involved in productivity, improvement in criminal justice agencies, and program evaluation.

CCJ 6915 Directed Individual Graduate Study in Criminal Justice (3). Students can select a particular aspect of criminal justice for in-depth independent study with a criminal justice faculty. Prerequisite: Graduate Standing.

CCJ 6945 Field Experience in Criminal 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 (1-3). This course is devoted to the actual research labor required for a thesis in the Masters program.

CCJ 6976 Masters Thesis Defense (1-3). This course is devoted to the effort required to prepare the thesis document.

PAD 6053 Political, Social and Economic 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 6227 Public Finance and the Budgetary Process (3). 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 inter-governmental financial relations.

URS 6130 Human Resource Policy and Management (3). The course focuses on the role of the personnel manager and how the manager performs tasks connected to human resources development, policy and management in public and nonprofit organizations.

URS 6155 Quantitative Methods for Policy & Management (3). An intensive introduction to statistical and forecasting tools appropriate for public, nonprofit, and health professionals. Prerequisites: URS 4112 or equivalent.

URS 6436 Professionalism and Ethics (3). Examines behavioral approaches toward understanding the personal world of public managers with emphasis on knowledge, skills, and abilities which aid effective goal accomplishment.

URS 6654 Applied Organization Theory and Behavior. (3). 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.)

URS 6806 Applied Research and Evaluation Techniques (3). 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. Prerequisite: URS 6155.

Health Services Administration

Andrew Batavia, *Associate Professor*

David Bergwall, *Associate Professor and Associate Dean*

Gloria Deckard, *Associate Professor and Interim Director*

Burton Dunlop, *Senior Lecturer*

Rosebud Foster, *Professor*

Kristina Guo, *Assistant Professor*

Gerald Mills, *Assistant Professor*

Frederick Newman, *Professor*

Max Rothman, *Senior Lecturer*

Vandon White, *Professor*

The program in Health Services Administration offers graduate and undergraduate studies leading to Bachelor's and Master's degrees in Health Services Administration.

The Graduate Program in Health Services Administration is accredited by the Accrediting Commission on Education for Health Services Administration (ACEHSA). Accreditation by this agency ensures the student that the program has been reviewed and meets the national standards for graduate studies in the field.

The management of health services occurs in an environment 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. Many of the same skills needed for executive management are now also required to provide leadership in staffing, directing, coordinating, and controlling the operational resources of administrative and clinical units in such organizations.

The Master of Health Services Administration (MHSA) provides professional education for management careers in health services organizations. The degree addresses the theories and issues of managing complex organizations in both public and private settings. The program is organized to meet the needs of the working student. Many individuals enrolled are already employed in administrative roles in the field. While enhancing their career, they bring the wealth of their experience to the classroom.

The Master's program is designed so that full-time students may complete all course work in five 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 administration.

Since these studies provide a professional emphasis, the Program utilizes a variety of local hospitals, long-term care facilities, 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 service administration.

The goal of the program in Health Services Administration is to create an academic center in which the University can respond to the educational needs of the field of health services administration. The Program'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 participate in inter-professional education experiences with faculty, students, and practitioners of the allied health sciences, public affairs, public health, and related human services professions interacting with the field of health care management.

3. To extend consultation and technical assistance to appropriate organizational settings and practitioners in health services and administrative practice.

4. To conduct scholarly and applied research on various management problems and issues of significance to improve the delivery of health services.

5. 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.

Master of Health Services Administration

Admission Requirements

Students seeking admission into the graduate program must meet the following minimum requirements:

1. Satisfactorily meet the general University requirements for admission to graduate programs.

2. Hold a Bachelor's degree from a regionally accredited university or college.

3. Show promise of success in graduate studies as determined by the faculty. Admission to the program will be based upon a combination of the Graduate Record Examination (GRE) and the upper-division (last 60 hours) grade point average. Students who have taken the Graduate Management Admissions Test (GMAT) may submit that score in place of the GRE. Each applicant must have a composite score on the verbal and quantitative sections of the GRE of at least 1000 (for the GMAT at least 450) or a GPA for the last 60 hours of 3.0 or higher on a 4.0 scale. All applicants are required to submit a GRE or GMAT score.

4. Foreign students must obtain a minimum score of 500 on the TOEFL examination.

5. Prerequisites for admission include course work in accounting and statistics with a grade equivalent of 'C' or higher. Entering students are expected to possess basic micro-computer skills including word processing, Internet, and spreadsheet applications. Students who do not have these skills or prerequisites may complete these requirements in their first semester of study.

Meeting the minimum requirements does not guarantee admission to the program. Admission will be based on additional factors including compatibility of the applicant's career goals with the programs objectives, relevance of work experience, etc. The Program Admissions Committee may require a personal interview as a part of the application process.

All applications for admissions should be received by the Program no later than two months preceding the semester in which the student wishes to commence the program. A maximum of 12 semester hours taken as an affiliated student can be used toward the degree. Affiliated status does not guarantee admission to the degree program.

Admissions Procedures

A student wishing to enroll in the graduate program must complete the following:

1. Submit a Graduate Application to the University Admissions Office.

2. Have official transcripts of all previously earned college or university credits sent to the University Admissions Office.

3. Submit scores on the Graduate Record Examination or GMAT.

Effective for students entering the program 8/30/95 or afterward, Advanced Standing provides students with an undergraduate degree in Health Services Administration or in an administrative discipline to waive equivalent course content and to complete the Master's of Health Services Administration degree with 42 to 48 credit hours. The maximum allowable waiver of courses for Advanced Standing is nine credit hours. Courses for which the waiver may be granted include:

HSA 5125	Introduction to Health Services
URS 6654	Applied Organization Theory and Behavior
HSA 6426	Legal Aspects of Health Care

Students must apply for Advanced Standing upon admission to the Program or during their first semester in the Program. To apply for Advanced Standing, the student must complete an Advance Standing Petition Form and document equivalent course content with a grade of "B" or better. The application for Advanced Standing must be approved by the three member HSA Curriculum Committee.

Students entering the MHSA program with an undergraduate degree in business administration (BBA) and possessing equivalent courses in management, organization theory and organizational behavior course work may apply for a waiver of URS 6654 Applied Organization Theory and Behavior allowing them to complete the Program in 48 credit hours.

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 51 semester hours of graduate level course work in the approved program.

3. Earn a minimum overall GPA of 3.0 in all work completed at the University 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 nine semester hour-credits of graduate course work not included in another degree, may be transferred from an accredited university by petition at the time of admission.

All students completing the Master's program are subject to graduate student regulations and degree requirements governed by the policies of the College of Urban and Public Affairs and the University.

Courses are sequenced to enhance the development of competencies as students progress through the curriculum. Students need to pay attention to course prerequisites and adhere to course sequencing.

Program Total: (51)

Core Courses required of all students: (45)

Group 1	
HSA 5125	Introduction to Health Services 3
HSA 6415	Managerial Applications of Social Determinate of Health 3
HSA 6176	Financing and Reimbursement of Health Delivery Systems 3
URS 6155	Quantitative Methods and Analysis 3
Group 2	
HSA 6155	Health Policy and Economics 3
HSA 6175	Financial Management of Health Services 3
URS 6654	Applied Organization Theory and Behavior 3
HSA 6756	Applied Program Development and Evaluation Methods 3
Group 3	
HSA 6149	Strategic Planning and Marketing of Health Care Services 3
HSA 6185	Health Services Organization and Management I 3
HSA 6187	Personnel Management and Labor Relations 3
URS 6130	Human Resource Policy and Management 3
HSA 6197	Design and Management of Health Information Systems 3
Group 4	
HSA 6426	Health Law and Legal Aspects of Management 3
HSA 6717	Advanced Health Services Management and Research Seminar 3
HSA 6930	Professional Seminar in Health Services Management 1
Field Elective: (one of the following)	
HSA 5225	Long Term Care Management I 3
HSA 6205	Hospital and Health Facilities Management 3

HSA 6215	HMO and Ambulatory Care Administration	3
HSA 6245	Mental Health Administration and Planning	3

Integrative Experience

One of the following three:

HSA 5876	Administrative Residency in Nursing Home Settings	6
HSA 6875	Administrative Residency	2-6
HSA 6977	Master's Research Project	2-6

Opeo Elective: (3)

Students may select an elective course from the following or from other units of the University (i.e., public administration, business administration, public health or other disciplines) with an advisor's approval.

HSA 5226	Management in Long Term Care	3
HSA 5227	Long Term Care Management II	3
HSA 5408	Health Service Consumer Behavior	3
HSA 5455	Ethical Decision Making in Health Administration	3
HSA 5816	Practicum in Long Term Care Management	3
HSA 5876L	Administrative Residency in Nursing Home Settings	6
HSA 5935	Special Topics in Health Services	3
HSA 6905	Independent Advanced Study	3

Nursing Home Administration

Students interested in nursing home administration and seeking licensure as a nursing home administrator in the State of Florida are advised to take the following courses within their program of study:

HSA 5225	Long Term Care Management I	3
HSA 5227	Long Term Care Management II	3
HSA 5177	Financing and Reimbursement for Long Term Care (in place of HSA 6176)	3
HSA 5876	Administrative Residency in Nursing Home Settings	6

Administrative Residency

An administrative residency in a health care organization is offered to all students. Students lacking health services administrative experience are encouraged to complete an administrative residency.

The residency is considered an integral part of the educational process. It is designed to provide practical experience with the theories, concepts, and administrative skills the students acquired during the first year of academic study. The residency is normally arranged in an agency or institution compatible with the student's area of interest. The student works full-time with the health agency during this period. The faculty supervises the student during this period.

Students must apply for the administrative residency, be approved and placed in an agency by the Program the semester before the residency begins.

Course Descriptions

Definition of Prefixes

HSA - Health Services Administration;
URS - Urban and Regional Studies

HSA 5125 Introduction to Health Services (3). The American health care system is broadly analyzed in social, economic, and political terms, including examination of its major operational and programmatic components as they have evolved in their changing patterns and trends of organizational development.

HSA 5177 Financing and Reimbursement for Long Term Care Facilities (3). This course introduces the theory and practice of government regulations as they pertain to long term care facilities. The program seeks to identify the critical elements for securing payments for service and study relevant capital investment procedures and policies. Prerequisite: HSA 5225. Corequisite: HSA 5227.

HSA 5225 Long Term Care Management I (3). Long term care facility organization and management are studied. Management implications of the social, economic, financial, and regulatory environment of nursing homes are examined. Prerequisite: HSA 6185.

HSA 5226 Management of Long Term Care Systems (3). Organizational, financial, and policy issues in the management of long term care systems in the U.S. with special emphasis on the State of Florida.

HSA 5227 Long Term Care Management II (3). Survey of theories of geriatric care for understanding the aging process. Focus is on the application of knowledge of the aging

process to management and care given in nursing homes. Corequisite: HSA 5816.

HSA 5408 Health Services Consumer Behavior (3). Course examines the factors affecting consumer choice in the utilization of types of health services, health services delivery locations, and methods of health care delivery. Examines the role of the provider in the consumer behavioral model.

HSA 5455 Ethical Decisions in Health Services Administration (3). This course will study ethical principles as they apply to areas of management, supervision and clinical practice in the delivery of health care. Emphasis is on managerial decision-making. Prerequisites: HSA 5125, HSA 6185.

HSA 5816 Practicum in Applied Management in Long Term Care (3). Students will spend 180 hours in supervised practice in a nursing home setting. They carry out managerial responsibilities related to the administration of the facility. Corequisite: HSA 5227.

HSA 5876L Administrative Residency in Nursing Home Setting (3-6). Students will spend 480 hours of supervised practice in a selected nursing home to gain experience in organization and management within the nursing environment. Prerequisites: HSA 5816, HSA 5225, HSA 5226, HSA 5227.

HSA 5XXXC Foundation in Gerontology for Health Professions (3). Implications for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

HSA 6147 Comparative Health Systems and International Health Planning (3). Students are directed through a study of the social, economic, political, and cross-cultural aspects of comparing health care systems of different countries of the world in terms of international perspective and relevance to future developments in the U.S. system.

HSA 6149 Strategic Planning and Marketing of Health Care Services (3). Principles, techniques, and case study applications of strategic planning and marketing in the context of changing environmental, policy, and competitive forces in the health services industry. Prerequisites: HSA

6175 and HSA 6415, or Permission of the instructor.

HSA 6155 Health Policy and Economics (3). The impact of government, private sector, and various interest groups on health care policy determination is analyzed through the application of basic economic principles. Prerequisite: HSA 6175 or Permission of the instructor.

HSA 6175 Financial Management of Health Systems (3). Aspects of modern hospital and health care organization financial management are covered to prepare students for executive roles in policy planning and control responsibilities involving budgeting, auditing, investing, capital financing, etc. Prerequisite: HSA 5125, HSA 6185, HSA 6176, or Permission of the instructor.

HSA 6176 Financing & Reimbursement of Health Systems (3). Financing models for health delivery systems are examined. Reimbursement strategy of medicare, medicaid and other third party payers are analyzed. Prerequisites: Accounting and microeconomics or Permission of the instructor.

HSA 6185 Health Services Organization and Management I (3). This is the anchoring course for examining each specialized study of the management functions in theory and in practice as they apply to health care organizations of both public and private sectors. Corequisite: HSA 3930.

HSA 6186 Health Services Organization and Management II (3). General theories of organizational behavior and executive functions are examined in their application to hospitals and other health agencies. Prerequisite: HSA 6185 or Permission of Instructor.

HSA 6195 Quantitative Managerial and Applied Research Methods (3). Surveys the operation's research tools and techniques used in health care organizations to solve operational and control problems that impact on efficiency, effectiveness, productivity, technological change, innovation, retrofitting. Prerequisite: Permission of the instructor.

HSA 6197 Design and Management of Health Information Systems (3). The development and management of health information systems to support managerial decision-making. Emphasis is on the integration of clinical, personnel, and financial data.

HSA 6205 Hospital and Health Facilities Organization (3). Administrative theory and management principles are examined in their application to the organizational analysis of hospitals and health care facilities. Prerequisites: HSA 5125, HSA 6185 or Permission of the instructor.

HSA 6215 HMO and Ambulatory Care Administration (3). Overview of the management process employed in health maintenance organizations (HMO's) and other group medical practices operating under various financial arrangements, including prepayment. Prerequisite: HSA 5125, HSA 6185, or Permission of the instructor.

HSA 6245 Mental Health Administration and Planning (3). Psychiatric and mental illness institutions are examined in terms of specialized organizations and administrative knowledge required for the operation of these types of health care facilities and their particular patient populations. Prerequisite: Permission of the instructor.

HSA 6415 Managerial Applications of the Social Determinants of Health (3). Social, psychological, and cultural determinants of health and their impact on health behavior and utilization are examined. Implications explored for managerial decision-making and health policy. Prerequisite: Computer Skills.

HSA 6426 Health Law and Legal Aspects of Management (3). The broad range of legal issues in health care and administrative aspects of law that concern health care managers are surveyed for implications concerning malpractice, patient rights, contracts, liability and immunity, taxation, surgical consent, etc. Prerequisite: HSA 6185 or Permission of the instructor.

HSA 6717 Advanced Health Services Management and Research Seminar (3). Integrates the theoretical and practical knowledge of other courses and activities in the curriculum. Selected case studies and relevant research provide the substantive framework for seminar analysis of issues and policy questions. Prerequisite: Completion of all other course work or Permission of the instructor.

HSA 6756 Applied Programs Development and Evaluation Methods in Health Services (3). Program evaluation as part of on-going assessment of

effectiveness and resource consumption (costs). Evaluation models and study design are analyzed. Grant proposal writing is emphasized. Prerequisite: URS 6155 and HSA 6415.

HSA 6875 Administrative Residency (2-6). Off-campus placement in residency with health care organizations under supervision of a managing preceptor at the site. Prerequisite: HSA 6930 and Approval of the coordinator.

HSA 6905 Graduate Independent Study (1-6). This course is designed to allow students an opportunity for in-depth literature research or an action-oriented project carried out under the supervision of their faculty advisor. Prerequisite: Permission of faculty advisor.

HSA 6930 Professional Seminar in Health Services Management (1). A professional seminar to provide career development skills in preparation for residency or master's project. Prerequisite: Corequisite: HAS 6185 or completed 36 credit hours in program.

HSA 6977 Masters Research Project (2-6). The student will be field 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 and approved by faculty. 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: HSA 6930 and Permission of advisor.

URS 6130 Human Resource Policy and Management (3). The course focuses on the role of the personnel manager and how that manager performs tasks connected to human resources development, policy and management in public and nonprofit organizations.

URS 6155 Applied Statistics for Urban Services (3). A broad-gauged introduction to statistical and forecasting tools appropriate for public, non-profit, and health care professionals. Course work will stress applications over derivation, with attention paid to how quantitative methods are integrated into organizational analysis and policy making. Prerequisites: PAD 5716 or equivalent.

URS 6654 Applied Organization Theory and Behavior (3). This course provides an overview of organization theory and organization behavior. Emphasis is on contemporary approaches to improving the overall effectiveness of public and health care organizations.

Public Administration

Ronald M. Berkman, *Professor and Dean*

Harvey Averch, *Professor*

Fred Becker, *Associate Professor*

James Carroll, *Professor*

Howard Frank, *Associate Professor*

Jean-Claude Garcia-Zamor,

Professor

Donald Klingner, *Professor and Coordinator*

Ralph Lewis, *Associate Professor*

Valerie Patterson, *Visiting Assistant Professor*

Lourdes Rassi, *Assistant Dean and Visiting Professor*

Keith Revel, *Assistant Professor*

Allan Rosenbaum, *Professor and Doctoral Coordinator*

Master of Public Administration

The Master of Public Administration prepares students for careers in public service and non-profit organizations. It also prepares students for private sector positions having significant contact with public organizations. The degree provides pre-service and mid-career students with an appropriate mix of technical and generalist skills needed for management and analytic positions in local, state, and federal government, as well as non-profit organizations. Students are given a broad-gauged exposure to the field in the core and subsequently develop expertise within their areas of specialization. The degree also provides students with the necessary analytic and substantive background for successful pursuit of doctoral studies within the discipline. Graduates are well-prepared for positions as city manager, finance director, budget analyst, personnel director, special project coordinator and program analyst.

The MPA Program in Public Administration is accredited by the National Association of Schools of Public Affairs and Administration. Accreditation by this agency ensures the student that the program has been reviewed and meets the national standards for graduate studies in the field.

Admission Requirements

All applicants must hold a baccalaureate degree from an 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 or a

GPA of 3.0 or higher for all college course work at the junior and senior levels. All applicants regardless of previous GPA are required to submit the appropriate test scores.

Degree Requirements

The Master of Public Administration (MPA) program requires a minimum of 42 semester hours, consisting of 11 required courses (33 semester hours), and a minimum of three courses within the specialization.

Core Courses

The MPA core consists of the following eleven courses:

PAD 5256	Public Economics and Cost Benefit Analysis	3
PAD 6053	Political, Social and Economic Context of Public Administration	3
PAD 6056	The Practice of Public Management	3
PAD 6227	Public Finance and the Budgetary Process	3
PAD 6436	Professionalism and Ethics	3
URS 6130	Human Resource Policy and Management	3
URS 6028	Policy Analysis and Planning	3
URS 6155	Quantitative Methods and Analysis	3
URS 6654	Applied Organization Theory and Behavior	3
URS 6658	Leadership and Decision-making	3
URS 6806	Applied Research and Evaluation Techniques	3
PAD 6053, URS 6155, URS 6806, and PAD 5256 must be taken during the first 18 credit hours of course work. Students who cannot demonstrate basic microcomputer literacy should take PAD 5716, Management Support Systems in Public Organizations, prior to enrolling for URS 6155. URS 6155 is a prerequisite for URS 6806. PAD 5256 is a prerequisite for URS 6806.		

PAD 6056, The Practice of Public Management, is a capstone experience for the program and must be taken during the last semester of course work.

Grading, Sequencing, and Substitution Policy

Students must maintain a 3.0 GPA to graduate. A grade of 'C' or better is required for every core course. Note: A 'C-' is not acceptable.

The Program reserves the right to withhold the awarding of credit for course work taken out of sequence and without appropriate prerequisites.

Any core course with the exception of PAD 6056 may be waived through petition to the Program Director and MPA Coordinator. The petitioner must demonstrate the equivalence of the previous course work, and prove that their performance met or exceeded core requirements.

Students entering the MPA Program with a Bachelor of Public Administration or equivalent degree may elect to substitute a fifth specialization course or other elective, for PAD 6053. Students who enroll for PAD 5716, Management Support Systems in Public Organizations, may count this towards their area of specialization.

Specializations

At least three more courses (9 credit hours) must be taken in one of the following specializations, which are designed to strengthen the student's knowledge in a specific functional or policy area of public administration.

Human Resource Policy and Management

Students must take three out of the following nine courses:

PAD 5043	Government and Minority Group Relations	3
PAD 5427	Collective Bargaining and the Public Sector	3
PAD 5435	Administrator and the Role of Women	3
PAD 5460	Productivity Improvement	3
PAD 5616	Contracting and Managing Third Party Governments	3
PAD 6437	Dynamics of Individual Growth	3
PAD 6605	Administrative Law	3
PAD 6836	International Public Administration	3
URS 6436	Professionalism and Ethics	3

Urban Management

Students must take the following course:

PAD 6807	Urban and Municipal Government Administration	3
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Students must take three of the following courses:

PAD 5460	Productivity Improvement	3
PAD 5616	Contracting and Managing Third Party Governments	3
PAD 6205	Public Financial Management	3

PAD 6229	Advanced Management Techniques	3
PAD 6816	Regional and State Government Administration	3
PAD 6605	Administrative Law	3
URP 5313	Introduction to Urban Planning and Growth Management	3
URP 5426	Emergency Management and Planning	3
URS 5505	Economic Development and Urban Revitalization	3
URS 5655	Strategic Planning in Public and Non-Profit Organizations	3
URS 5657	Continuous Quality Improvement	3

Outside Specializations

Students who wish to construct their own concentrations in cognate areas of public administration such as criminal justice, environmental and urban systems, economics, gerontology, social work, or anthropology may do so under the following conditions:

1. Students must obtain the approval of the graduate coordinator.
2. Students must satisfy all core requirements for the MPA; and
3. The outside concentration must have a minimum of 9 semester hours in addition to the 33 semester hour core. Pre-service students (those with less than two years post-baccalaureate work experience) are strongly encouraged to enroll in PAD 6946 (Internship) to supplement their academic course work. Students are normally limited to three semester hours of internship credit for their program of studies. Students seeking to enroll in either PAD 6907 or PAD 6915 for more than three credit hours must obtain permission from the Program Coordinator prior to registration.

Doctor of Philosophy

The Doctor of Philosophy in Public Administration (Ph.D.) is designed to prepare students for senior level positions in public, nonprofit, and health organizations, and to engage in research for academic or other policy analytic positions. The degree provides a sound foundation in current administrative practice in public administration and its cognate disciplines within the School of Policy and Management. Doctoral students will be expected to demonstrate significant research capacity in these

disciplines, through the writing of a dissertation.

Admission Requirements

Generally, applicants must have a Master's degree prior to program enrollment, though outstanding applicants may also be considered with only a baccalaureate degree. Admission is not restricted to students with prior course work in Public Administration and the Program encourages applicants with diverse academic backgrounds.

Admission into the Ph.D. program will be granted to students of superior ability who have demonstrated a record of previous academic success, good potential for continued success in doctoral studies, and a desire to prepare for a career in which scholarship, research, and analysis are major elements. To document these qualities applicants must complete a University application form and submit a written personal statement concerning the reasons for pursuing a Ph.D. in Public Administration, a current resume, official GRE test scores, official transcripts of previous college course work, three recommendations using the Program's recommendation form, and samples of written work. Applicants who reside within a 50 mile radius of Miami must interview with Ph.D. Program Faculty. All students are encouraged to speak with the Ph.D. Coordinator prior to submitting an application.

Generally, an applicant is expected to have, at minimum, a GPA of 3.5 or better for all graduate course work and a combined score of 1050 on the GRE quantitative and verbal sections, with a minimum of 500 on each of these components. Students whose language of nurture is not English must achieve a minimum of 600 on the Test of English as a Foreign Language (TOEFL). Students must also demonstrate knowledge of American political institutions and fundamentals of social research methods and microcomputers. The admission process is competitive and the Program considers all of the evidence in the application file in making its decision. Meeting the minimum requirements does not guarantee admission and applicants failing to meet the minimum requirements may be admitted based on other evidence of potential.

Admitted students may transfer a maximum of six semester credits (not included in another degree) from other institutions toward Ph.D. degree requirements. Admitted students must

demonstrate competence in inferential and descriptive statistics with regression, applied microeconomics and policy analysis, organization theory and design, social science research methods, personnel and workplace issues, and microcomputer literacy, or take remedial courses in these areas prior to core course work. All incoming Ph.D. students who have not taken Master's level research methods and quantitative skills classes within three years of admission will be given a diagnostic examination in these areas. Students with identified deficiencies will be assigned remedial work specified by the Program.

Financial Aid

The objective of financial aid is to provide direct assistance to those students who require financial assistance to complete their doctoral programs, and to enhance the reputation of the program by attracting an outstanding cadre of students.

To receive financial aid from University and Program sources, doctoral students must be enrolled full-time (9 semester hours during the term in which they receive financial aid). Program assistance is reserved for students with no outside employment.

The exact amount of financial assistance depends upon funding provided by the University and the legislature. The current level of Program assistance is between \$9,000 and \$16,000 annually. Students on assistantships are eligible for matriculation fee waivers paying the bulk of the tuition.

Program financial aid is awarded in one-year blocks, and is generally provided for up to three years of the student's doctoral study. Non-resident applicants may also apply for waiver of out-of-state tuition by contacting the Program at the time of admission.

The University has a variety of other financial aid opportunities including graduate grants (currently \$800 per semester for in-state students and \$1500 per semester for non-residents), scholarships, loans, work-study programs and targeted scholarships. Information on these and other opportunities are available through the University and College financial aid offices.

To apply for assistance, students should notify the Ph.D. Coordinator of their intent at the time of application. For matriculation fee waivers and University assistance, students must file the University's Financial Aid

Form (FAF) and the other University aid documents. Information on the university procedures is available in the financial aid office of the College of Health and Urban Affairs and in the University's Financial Aid office.

Degree Requirements

To obtain the degree, admitted students must complete at least 69 semester hours beyond the Master's degree, or its equivalent, including 45 semester hours of approved course work and 24 hours of dissertation work after admission to candidacy. In addition, there is a residency requirement of at least 18 semester hours in three consecutive semesters of study during the first year of enrollment in the Ph.D. core curriculum, and a minimum of six hours required in all subsequent semesters, as set forth in the Doctoral Program in Public Administration Handbook.

Successful completion of course work and passing scores on the comprehensive examination are required before students can advance to candidacy for the Ph.D. and present a dissertation proposal. The Doctoral Program in Public Administration Handbook also sets forth benchmarks for student progress in grade point average, course completion, comprehensive examinations and dissertation work.

Program of Study

The Doctor of Philosophy in Public Administration is a 89 semester hour program with eight required courses (27 semester hours); two additional research tools electives (six semester hours); four courses within the student's specialization (12 semester hours); and Dissertation (24 semester hours).

During the first semester of the program, students are required to select, with the assistance and approval of the Ph.D. Coordinator, an advisor who is a tenured faculty member in the program. By the end of the first year, students are required to develop a program of study with the assistance and approval of their advisor and the Program Director.

Core Curriculum: (27)

PAD 7026	Proseminar in Public Administration and Policy	3
PAF 7002	Foundations of Policy Analysis	3
URS 7153	Research Practicum	6
URS 7154	Applied Research Methods	3

URS-7379	Leadership Development and Decision Making	3
URS 7380	Contemporary Management Issues and Problems	3
URS 7644	Managing Public Financial Resources	3
URS 7655	Evaluating Organizational and Program Performance	3

Research Tools Courses: (6)

Students must complete at least six hours of course work, three hours of which must be PAD 7705. The additional course work is selected with the advice of the student's advisory committee and the program director and must be approved as part of the student's program of study.

Specialization Courses: (12)

Students are required to take four courses in an area of specialization to be designed with the advisor. Three of these courses must be 5000, 6000, or 7000 level courses to be taken within the University, or specially designed course developed by the student's advisors. One course, URS 7926, Supervised Readings, will be required of all students and is to be taken in conjunction with URS 7155, Research Practicum, during the last semester of course work prior to sitting for the comprehensive examination.

18 and 36 Credit Hour Review

The student's performance will be carefully monitored at 18 and 36 credit hours, respectively, after full admission to the Program. The Public Administration Doctoral Handbook establishes guidelines and criteria to be employed for the review. Less than satisfactory reviews may result in modified Programs of Study due to remedial course work, or dismissal from the Program.

Students may develop their own specialization in areas of their choice relevant to Public Administration and Public Policy, such as Health Services Administration, Environmental Policy, Urban Planning, etc. All specializations are developed after consultation with and upon approval of the advisor and program director.

Comprehensive Examination

After the completion of all course work, students will be given a written examination, testing their knowledge of Public Administration and Policy Analysis and their specialization. Upon passing the components of the

comprehensive examination, the student may apply for advancement to candidacy for the Ph.D.

Students who fail the Comprehensive Examination on the first attempt must retake the examination at its next offering. Students who fail the examination twice are automatically dismissed in accord with general University policy.

Dissertation: (24)

Upon successful completion of the comprehensive examination, students select their dissertation guidance committee and begin preparation of their dissertation proposal. Students are expected to defend their dissertation prospectus before the end of the first semester subsequent to passing the Comprehensive Examination.

Upon the public defense and approval of the proposal, the student will initiate formal work on the dissertation. During this time, the student is expected to make appropriate progress toward completing the dissertation, and to enroll continually (at least six credits per semester) until the degree is completed. Upon completion of the dissertation, candidates will formally defend the research at a meeting conducted by the Dissertation Committee. The degree will be awarded upon a positive recommendation of the Committee and compliance with all policies and procedures required by the University.

Certificates

The Program offers certificates in Human Resource Policy and Management, International Comparative Development Administration, and Public Management. Please refer to the Certificate section under the College for detailed information.

Course Descriptions

Definition of Prefixes

CGS-Computer General Systems; MAN-Management; PAD-Public Administration; PAF-Public Affairs; PUP-Public Policy; URS-Urban and Regional Studies.

CGS 6301/MAN 6830 Management Information Systems (3). 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 5041 Values and Technology in Modern Society (3). 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 5043 Government and Minority Group Relations (3). 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 5256 Public Economics and Cost Benefit Analysis (3). This course provides the quantitative and qualitative tools and case material to solve allocation problems in the public sector. Applied microeconomic theory, welfare economics, and market and government failure are analyzed as are the public alternatives available. Benefit-cost analysis, the ethics of applied practice, and the important skills of communicating with decision makers are taught.

PAD 5416 Social Equity and Human Resource Management (3). The course deals with the human resource management issues arising from equity and affirmative action requirements in the workplace.

PAD 5427 Collective Bargaining in the Public Sector (3). 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 Administration and the Role of Women (3). The course is designed for women and men who are interested in moving into management positions, or who have done so and

want to broaden their understanding of the changing role of women. Classes will allow for experimental as well as academic exploration of the issues. The course will also explore design, implementation, and evaluation of affirmative action programs.

PAD 5443 The Public Administrator and Media Relations (3). Surveys the government-mass communication media relationship, and then concentrates on the ways in which public managers handle media relations. Emphasis throughout is placed on questions of information-handling unique to public organizations, involving, for example, adherence to Florida's Sunshine Law and the Federal Freedom of Information Act.

PAD 5460 Productivity Improvement (3). Provides measures to improve organizational and worker productivity using applied behavioral science.

PAD 5616 Contracting and Managing Third Party Governments (3). Analyzes the legal foundations, administrative and economic characteristics of government instrumentalities as they are used to pursue public policy. Analyzes how and why different combinations of instrumentalities are used in different policy areas.

PAD 5660C Applied Legal Context of Public Administrators (3). An overview of constraints and latitude the legal system grants to public administrators and managers. Provides the applied legal information required to make effective decisions in the public sector.

PAD 5661C Management of Court-Agency Relations (3). Examines applied judicial-administrative relations with particular emphasis on administrative policymaking. Covers the legal, environmental, and political factors that influence administrative strategies of policy and program compliance.

PAD 5716 Management Support Systems in Public Organizations (3). The course examines a variety of computer-based management support applications used in public sector organizations. It also explores design and implementation issues endemic to the public sector.

PAD 5934 Contemporary Issues in Public Administration (3). An analysis of major conceptual issues currently facing public administrators. May be repeated.

PAD 6042 Democracy and the Administrative State (3). Juxtaposes the contemporary administrative condition of American government with the values of the democratic state. Different approaches to democracy - in practice as well as in theory - will be analyzed, and their implications for public organizations and individual administrators examined.

PAD 6053 Political, Social and Economic 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 6056 The Practice of Public Management (3). This capstone course for the MPA Program will deploy skills, concepts, and knowledge acquired in previous course work in analytic exercises related to students' areas of specialization. Prerequisites: Completion of MPA Core; last semester of course work status.

PAD 6106 Organization Theory and Administrative Behavior (3). 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 6205 Public Financial Management (3). Capital asset administration, debt administration, revenue systems, public employee retirement programs, purchasing, inventorying, and risk management.

PAD 6224 Advanced Seminar in Public Budgeting (3). A review of the state of the art in public budgeting, emphasizing conceptual areas for significant research and appropriate methodological design for addressing them. Prerequisites: PAD 6227, PAD 6229, and PAD 6205.)

PAD 6225 Comparative Public Budgeting (3). Public budgeting is a common activity in all governments and international organizations. Covers the differences in budgeting and

explores patterns implicit in those differences.

PAD 6227 Public Finance and the Budgetary Process (3). 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 inter-governmental financial relations.

PAD 6229 Advanced Management Techniques (3). Explores quantitative revenue and expenditure models and other techniques which address public sector decision making under conditions of resource constraint. Prerequisites: PAD 5256, PAD 6205 or Permission of the instructor.

PAD 6366 Policy and Program Implementation (3). This course examines and evaluates the legal, socio-political administrative factors influencing the implementation of public policy and programs. Prerequisite: PUP 6015. (S)

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 (3). 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-balances system; discretionary justice; and others.

PAD 6715 Public Monitoring Systems for Government Organizations (3). Focuses on the formal information system which is or can be used to guide a public organization and judge its performance.

PAD* 6807 Urban and Municipal Government Administration (3). 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 (3). Surveys the historical development of regional administration, analyzes present administrative problems of the states, and explores contemporary and suggested remedial policies. Emphasizes the complex problems of the institutional relationships among local, state and regional governments, and their implications for public policy-making.

PAD 6836 International Public Administration (3). The role of public administration systems around the world; and the impact of political and socio-cultural frameworks on administration. Focus on national and state organizations' politics, economics, problems, and possibilities. A review of scope and programs of contemporary international public administration organizations. Prerequisite: PAD 5256.

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 6839 Comparative Public Policy (3). This course addresses policy formulation and implementation as a general process of administrative action that can be investigated among the varying nation-states. It covers the differences in policy and explores patterns implicit in those differences. Prerequisite: PAD 6836 or PAD 6838.

PAD 6907 Independent Study in Public Administration (1-6). (Normally 3 credit hours) Individual conferences; supervised readings; reports on personal investigations and similar undertakings. Prerequisites: Comple-

tion of required courses in public administration is expected. Consent of faculty sponsor and Program Director required.

PAD 6915 Independent Research in Public Administration (1-6). (Normally 3 credit hours) An individualized research project and report which, if feasible, should include field work with a public organization. Prerequisites: Completion of required courses in public administration is expected. Consent of faculty sponsor and Program Director required.

PAD 6946 Public Administration Internship (1-6). (Normally 3 credit hours) 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 Program Director required.

PAD 7026 Proseminar in Public Administration and Policy (3). An intensive introduction to American Public Administration and Public Policy making and implementation by "The Fourth Branch" of government.

PAD 7055 Scope and Theory of Public Administration (3). An integrative capstone seminar in which traditional Models of Public Administration are explored and employed to analyze the structures and dynamics of public organizations and to develop alternative Models and new theoretical perspectives concerning the scope and theory of the field.

PAD 7102 Advanced Organization Theory (3). Philosophical foundations of contemporary organization theory, with emphasis on dynamic interfaces between the environmental contexts and organizations, critical analysis of both the normative and incremental orientation of concepts, theories, models, and applications. Prerequisite: PAD 6106 or equivalent.

PAD 7257 Economic Context of Government (3). This course examines interdisciplinary approaches to collective decision making and the delivery of public goods and services. Prerequisite: PAD 5256.

PAD 7607 Legal Context of Public Administration (3). This course analyzes the administrative significance of delegation, judicial review, rule making, freedom of information and sunshine laws, legislative veto, and liability for administrators. Prerequisite: PAD 6053.

PAD 7702 Empirical Methods in Public Administration (3). An advanced research/seminar practicum focusing in the development of theoretical models relevant to public administration and analytical techniques for testing these models. Particular attention is paid to structural equation models and latent measures.

PAD 7705 Applied Quantitative Analysis (3). Application of selected multivariate statistical and quantitative models to the field of public administration. Prerequisite: URS 6155.

PAD 7707 Advanced Applied Research Methods (4). This course will provide students with an increased understanding of concepts of research methods through applied research projects related to public policy and public administration. Prerequisites: URS 6155 and URS 6806.

PAD 7913 Comprehensive Examination in Public Administration (1-6). An in-depth review of the Public Administration knowledge base taken prior to sitting for the comprehensive examinations. May be repeated for credit. Prerequisite: Completion of Program of Studies.

PAD 7960 Comprehensive Examination in Public Administration (3). Intensive preparation for the comprehensive examinations in Public Administration in both the core and areas of specialization. Students may repeat for credit. Prerequisite: Completion of program of studies.

PAD 7980 Dissertation (1-12). This course provides dissertation guidance to doctoral candidates in the Ph.D. program in public administration. Prerequisite: Ph.D. candidacy in Public Administration.

PAF 7002 Foundations of Policy Analysis (3). Intensive exploration of models, theories, and designs applied to quantitative and qualitative methods of public policy analysis. Instruction and case studies cover a wide range of normative and policy issues. Prerequisite: URS 6028, PAD 5256, and PAD 6053.

PUP 6006 Public Policy Analysis and Evaluation (3). A framework for evaluating public policy-making will be presented. The emphasis will be on criteria and methodologies available for choosing among alternative courses of action. The systems approach, alterna-

tive futures, and nth-order consequences of policies will be analyzed.

PUP 6015 Public Policy (3). 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, etc.) are examined.

URP 5314 Introduction to Urban Planning and Growth Management (3). An historic overview of land use planning and the rise of growth management with emphasis on implementation in complex market and political environments.

URP 5426 Emergency Management and Planning (3). This course focuses on the concepts, processes, and techniques associated with developing and implementing emergency management plans in public, nonprofit, and health organizations.

URS 5505 Economic Development and Urban Revitalization (3). This course is an interdisciplinary examination of research and practice in contemporary economic development, with emphasis on successful implementation in a variety of settings.

URS 5645 Strategic Planning in Public and Non-Profit Organizations (3). This course exposes students to the concepts associated with strategic planning of public and nonprofit organizations and provides them with practical experience in their use.

URS 5647 Continuous Quality Improvement (3). This course provides an in-depth exposure to the concepts, principles, and techniques associated with continuous quality improvement (CQI) applied to public, nonprofit, and health organizations.

URS 6028 Policy Analysis and Program Planning (3). This course presents techniques and tools for the practice of policy analysis in public, nonprofit, and health organizations, with emphasis on constructing policy analysis useful to decisionmakers. Prerequisites: PAD 5256, and URS 6155 or equivalent.

URS 6130 Human Resource Policy and Management (3). The course focuses on the role of the personnel manager and how the manager performs tasks connected to human resources development, policy and

management in public and nonprofit organizations.

URS 6155 Quantitative Methods for Policy & Management (3). An intensive introduction to statistical and forecasting tools appropriate for public, nonprofit, and health professionals. Prerequisites: URS 4112 or equivalent.

URS 6158 GIS Applications for Urban Management (3). Geographic Information System Applications for Urban decision makers and social sciences. Prerequisite: URS 4112 or equivalent.

URS 6378 Leadership and Decision-making (3). Readings and case studies examine how effective leaders in the public and non-profit sectors make decisions in fluid and challenging environments.

URS 6436 Professionalism and Ethics (3). Examines behavioral approaches toward understanding the personal world of public managers with emphasis on knowledge, skills, and abilities which aid effective goal accomplishment.

URS 6654 Applied Organization Theory and Behavior (3). 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.)

URS 6806 Applied Research and Evaluation Techniques (3). 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. Prerequisite: URS 6155.

URS 7031 Information and Telecommunications Design and Policy (3). The managerial and public policy implications of innovations in the 'information super highway'; establishment of intra and interorganization capacity for dealing with continued development in the field. Prerequisites: Ph.D. status or Permission of the instructor.

URS 7156 Research Practicum (6). An integrative studio course intended to produce a defensible dissertation prospectus and significant empirical research project; may be repeated for credit. Prerequisites: Completion of Ph.D. tool requirement, and URS 7157.

URS 7157 Applied Research Methods (3). Extensive exploration of designs utilized in contemporary social and policy science research with emphasis on triangulated models. Prerequisites: Completion of tools requirement in program of studies or Permission of the instructor.

URS 7379 Leadership Development and Decision-Making (3). Leadership as the focal point for organizational development, resource allocation, and 'fit' within the environment; emphasis on effective leadership in the public, health, and nonprofit sectors. Prerequisites: Ph.D. status or Permission of the instructor.

URS 7380 Contemporary Management Issues and Problems (3). A proseminar on workplace issues such as AIDS, the Americans with Disability act, and 'the Glass Ceiling'. Special emphasis on diversity and increased utilization of contractual employees. Prerequisites: Ph.D. status or Permission of the instructor.

URS 7644 Managing Public Financial Resources (3). An integrative seminar treating taxation, public budgeting, debt management, and evaluation, in the context of a globally competitive economy. Prerequisites: Ph.D. status or Permission of the instructor.

URS 7655 Evaluating Organizational and Program Performance (3). Methodology and conceptual frameworks needed to augment organizational effectiveness while enhancing the accountability of public, health, and nonprofit organizations. Prerequisites: Ph.D. or Permission of the instructor.

URS 7926 Supervised Readings (3). Extensive reading and review in area of concentration taken in preparation for comprehensive examinations; supervised by Chair of Program Advisory Committee, may be repeated for credit. Corequisite: URS 7156.

School of Social Work

Ray J. Thomlison, Ph.D., *Professor and Director*
 Joan S. Wallace, Ph.D., *Professor and Associate Director*
 Velmarie Albertini, *Student Services Coordinator*
 L. Yvonne Bacarisse, *Associate Professor and Associate Dean for Undergraduate Studies*
 Richard Beaulaurier, *Assistant Professor*
 Arlené Brown, *Instructor and Field Practicum and Broward Coordinator*
 David Cohen, *Professor and Ph.D. Coordinator*
 Mario De La Rosa, *Associate Professor*
 Marian Dumaine, *Instructor and Field Practicum Coordinator*
 Andres Gil, *Assistant Professor and Associate Director for Research*
 Mary Helen Hayden, *Assistant Professor and BSSW Program Coordinator*
 Rosa Jones, *Associate Professor and Vice Provost of Academic Affairs*
 Monte Koppel, *Professor*
 Jill Levenson, *Visiting Instructor*
 Mark Macgowan, *Assistant Professor*
 Miriam Potocky-Tripodi, *Associate Professor*
 Chris Rice, *Assistant Professor*
 Estella Rodriguez, *Visiting Instructor*
 Florence Safford, *(Professor Emeritus)*
 Betsy Smith, *Associate Professor*
 Barbara Thomlison, *Professor and Acting Director, Institute for Children and Families at Risk*
 Nan Van Den Bergh, *Associate Professor and MSW Program Coordinator*
 Michele Verdi, *Instructor and Field Practicum Coordinator*
 Eric F. Wagner, *Associate Professor and Director, Teen Intervention Project*
 Stephen E. Wong, *Associate Professor and Ph.D. Program Coordinator*

The School of Social Work offers graduate and undergraduate studies leading to the Master of Social Work and Bachelor of Science in Social Work degrees. The School also offers a Ph.D. in Social Welfare.

The profession of Social Work requires a high degree of knowledge 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 in social work

practice, and identification with the values of the profession.

Master of Social Work

The School of Social Work, at Florida International University, offers an integrated program that leads to the Master of Social Work (MSW) degree. The program is designed to give the student professional education for the advanced practice of social work. The curriculum applies a bio-psycho-social model within the context of a social systems framework to understand client systems, address problems and develop interventions.

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 knowledge acquired in the professional courses will be applied in supervised field experiences in social agencies.

The program offers an advanced concentration in direct services to children and families and in direct services to the elderly. Students complete a field practicum program that supports practice in the specialized field. With the help of faculty, students will develop individualized programs in the concentration most likely to meet their educational needs and contribute to their professional objectives. The program provides a curriculum, which meets the current educational requirements for clinical licensure in Florida.

For additional information regarding the graduate social work program of study and degree requirements, contact the School of Social Work directly at (305) 348-5880.

The Master of Social Work Program at Florida International University is accredited 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 3.0 average in all upper-level division work. Application procedures for admission to graduate study are found in the current university catalog. An application to the

University, an application to the Social Work graduate program, a personal narrative, and three letters of reference are required for admission. A personal interview may be requested. All applicants should have had college-level courses in biology (including coverage of Human Biology) and statistics and 12 semester hours in the social and behavioral sciences.

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. The applicant must have received his/her BSW degree within the last five years, in order to be considered for Advanced Standing. Applicants for the Advanced Standing program will not be awarded any transfer credit, substitutions, or exemptions. Advanced Standing is not automatically granted. It is subject to successfully completing the Advanced Standing prerequisite course requirements with grades of 'B' or higher, including the required elective. Admission to the second year concentration will be governed by successful completion of these additional requirements to the minimum standards set forth by the Florida Board of Regents and the graduate Social Work program.

In addition to the College and University policies governing transfer credit the following regulations apply:

1. Courses taken in a Master of Social Work program, accredited by the Council on Social Work Education, in which the applicant was fully admitted, may be transferred up to a maximum of 30 semester hours.

2. Graduate courses taken in other than CSWE accredited Social Work programs and that were not used to satisfy the requirements of another degree, may be transferred up to a maximum of 6 semester hours.

3. Students in the Advanced Standing Program will not be awarded transfer credits.

4. Required concentration courses (6000 level) are not transferable.

Degree Requirements

The Master of Social Work program is a 60 semester hour program composed of a 30 semester hour foundation followed by 30 semester hours of concentration courses in the second year. The Advanced Standing Master of Social Work is composed of 11 semester hours of prerequisite courses and 30 semester hours of concentration courses. The

Advanced Standing Block must be successfully completed before advancing to the second year.

An overall GPA of 3.0 is required for graduation. Any required course in which a student receives a grade lower than 'B' must be retaken. (A grade of 'B-' is not acceptable.) However, a grade of 'B-' in an elective does not have to be retaken. Nonetheless, the elective required as a part of Advanced Standing core courses must be passed with a 'B' grade. A passing grade in field practicum courses is required for continuation in the program. Field courses cannot be repeated.

A student must successfully complete all work applicable to the Master of Social Work program within 48 months from initial admission. In unusual circumstances, and if the reasons warrant it, a student may petition the School Director for an extension of the time limit.

First Year

Required Courses: (30)

SOW 5105	Human Behavior and the Social Environment I	3
SOW 5125	Human Behavior and the Social Environment II- Psychopathology	3
SOW 5235	Social Welfare Policy	3
SOW 5324	Theory and Practice with Groups	3
SOW 5342	Practice with Individuals and Families	3
SOW 5344	Theory and Practice with Communities and Organizations	3
SOW 5404	Social Work Research Methodology	3
SOW 5532	Field Practicum I	5
SOW 5542	Integrative Field Seminar I	1
SOW xxxx	Direct Social Work Practice Elective	3

Advanced Standing

Required Prerequisite Courses: (11)

SOW 5125	Human Behavior and the Social Environment II-Psychopathology	3
SOW 5324	Theory and Practice with Groups	3
SOW 5541	Advanced Standing Seminar	2
SOW xxxx	Direct Social Work Practice Elective	3

Students are required to complete all of the First Year Courses and be fully admitted before enrolling into any of the 6000 level Concentration courses.

Second Year

Concentration Requirements: (30)

Services to Children and Families

SOW 6243	Child and Family Social Policy Issues	3
SOW 6351	Intervention Strategies in Marriage & The Family	3
SOW 6435	Evaluative Research in Social Work	3
SOW 6655	Intervention Strategies with Children & Adolescents	3
SOW 6535	Field Practicum II	8
SOW 6543	Integrative Field Seminar II	1
SOW xxxx	Direct Social Work Practice Elective	9

Services to the Elderly

SOW 5641	Understanding the Process of Aging	3
SOW 6359	Social Work Practice in Long Term Care and the Elderly	3
	or	
SOW 6649	Social Work Practice in Long Term Care and the Elderly	3
SOW 6245	Social Welfare Policy and Services for the Elderly	3
SOW 6435	Evaluative Research in Social Work I	3
SOW 6535	Field Practicum II	8
SOW 6543	Integrative Field Seminar II	1
SOW 6646	Social Work Practice with the Elderly	3
SOW xxxx	Social Work Direct Practice Electives (2)	6

Students in the elderly concentration who have taken SOW 5641 have two concentration elective options.

Doctor of Philosophy in Social Welfare

The Doctor of Philosophy in Social Welfare (Ph.D. in Social Welfare) is designed to prepare students for active research careers and leadership roles in social welfare, social work, and social work education. The major purpose of the program is the development of research knowledge for the design, testing and implementation of effective interventions from direct practice to social welfare policy for social problems.

The overarching emphasis in the Ph.D. program is on research to develop more effective interventions to address the social problems and meet the human needs of multicultural populations and communities. Students will pursue individualized courses of study focused

on an area of specialization related to the social problems and levels of intervention of particular interest to the student. Mastery of state of the art research methodologies and data analysis techniques is a key part of the program, and students will have an opportunity to conduct intervention research under the direction of experienced faculty members. Preparation for teaching is also offered in the program.

Admission Requirements

Admission to the Ph.D. program in Social Welfare will be granted to students of superior ability who have been admitted to the graduate program of Florida International University. Applicants are required to submit:

1. A Master's degree in Social Work from an accredited school of social work, or in a closely related field.
2. Evidence of superior academic achievement in undergraduate and graduate education, including a 3.25 undergraduate GPA and a 3.5 graduate GPA.
3. A composite quantitative and verbal score of least 1000 on the Graduate Record Examination (GRE).
4. Documentation of completion of courses in statistical methods and research methodology with grades of 'B' or better.
5. Students for whom English is a second language must have a TOEFL score of 550 or higher;
6. Three letters of recommendation (two academic and one professional);
7. Two examples of written scholarly work;
8. A personal statement describing the applicant's professional and research interests and objectives.

All applicants must be approved by the Doctoral Committee. Applications for Fall semester admission are due by April 30 of the year of application.

Degree Requirements

To be awarded the Ph.D. degree, admitted students must complete two years of full-time course work plus a dissertation. The curriculum includes courses and seminars on theories of intervention, research priorities in social work and social welfare, issues in social welfare policy, research methodology, quantitative methods, and an individualized course of study in the social and behavioral sciences. Students will have the opportunity to select tutorials with social work faculty on topics related to the student's specialized social problem and intervention

interests. Other degree requirements include:

One year of residency, (i.e., completion of at least two consecutive semesters of full-time study during the first year following admission to the Ph.D. program); successful passage of faculty review at the end of the first year; successful completion of all required course work with a grade of 'B' or higher; passing scores on written and oral comprehensive examinations; under the guidance of a Dissertation Committee, selection of a dissertation topic, preparation of an acceptable dissertation research project, completion of dissertation research, and defense of the dissertation.

Program of Study

The Doctor of Philosophy in Social Welfare is a 64 semester hour program comprised of 14 required courses and 24 semester hours of dissertation study.

Course Offerings

SOW 5932	Seminar in Social Work: Interdisciplinary Seminar	3
SOW 6914	Independent Research	1
SOW 7237	Research Topics in Micro-Practice Interventions	3
SOW 7238	Research Topics in Macro-Practice Interventions	3
SOW 7492	Research Methods in Social Welfare I	3
SOW 7493	Research Methods in Social Welfare II	3
SOW 7494	Advanced Social Welfare Research	3
SOW 7682	Social Systems Models and Methods	3
SOW 7916	Supervised Research	6
SOW 7936	Dissertation Seminar in Social Welfare	3
SOW 7939	Seminar on Social Work Education	3
SOW 7980	Dissertation Research	24
STA 6166	Statistical Methods I	3
STA 6167	Statistical Methods II	3

Course Descriptions

Definition of Prefixes

SOW - Social Work.
F-Fall semester offering; S-Spring semester offering; SS-Summer semester offering.

SOW 5105 Human Behavior and the Social Environment I (3). Study of individuals and families with emphasis on the analysis of bio-psycho-socio-cultural factors (including racial/ethnic and gender variables) affecting human development and social functioning

through the life cycle. Prerequisites: 12 semester hours of college-level courses in the social and behavioral sciences and one college-level course in biology (including coverage of human biology).

SOW 5109* Crises in the Lives of Women (3). An overview of special experiences in the lives of women which might lead women to seek professional assistance. Topics include pregnancy, domestic violence, rape, abortion, childbirth, sex discrimination, AIDS, climacteric, widowhood. Prerequisite: Senior or graduate standing.

SOW 5125 Human Behavior and the Social Environment II-Psychopathology (3). Study of the psychosocial aspects of client problems, including psychopathology, frequently encountered by social workers in direct practice with attention to differential treatment issues. Prerequisite: SOW 5105. (S,SS)

SOW 5235 Social Welfare Policy and Services (3). This course analyzes major social welfare policies and programs in the United States, their emergence, development, contemporary operations and how they shaped the development of the Social Work profession. (F)

SOW 5307* Behavior Therapy in Social Work Practice (3). Overview of the principles, clinical foundations, and applications of socio-behavioral approaches relevant to social work practice. Emphasis on behavioral change methods and problem solving in assessment, intervention, and evaluation.

SOW 5324 Theory and Practice With Groups (3). Study and application of biopsychosocial, cultural dimensions, theories, techniques and intervention strategies for social work group practice. Prerequisites: SOW 5342 and SOW 5344. Corequisite: SOW 5532 and SOW 5542 (for first year students) or SOW 5541 and SOW 5125 (for advanced standing students).

SOW 5342 Social Work Practice with Individuals and Families (3). This course is an overview of social work practice with individuals and families placing emphasis on professional values, interviewing skills, assessment, intervention, and outcome evaluation, all within a cross-cultural perspective. Corequisite: SOW 5105. (F)

SOW 5344 Theory and Practice with Communities and Organizations (3). Study and application of biopsychosocial-cultural dimensions, theories, techniques and intervention strategies

for communities and organizations. Focuses on empowerment of populations at rich and promotion of social and economic justice. Prerequisites or Corequisites: SOW 5342 and SOW 5105. (S,SS)

SOW 5354* Crisis Intervention in Social Work Practice (3). This course examines the etiology, structure, theory, and application of crisis intervention in social work practice. It provides assessment criteria for assignment to this form of treatment and techniques for intervention. Prerequisite: Senior or graduate level practice course, or Permission of the instructor.

SOW 5404 Social Work Research Methodology (3). This course provides information on the principles and methods of basic social work research. The ethical conduct of research is taught within the context of social work purposes and values. The formulation of problems for study that address the social needs of diverse population groups is emphasized. Prerequisite: Statistics. (F,S)

SOW 5532 Field Practicum I (5). A supervised educational field experience in an agency setting for a minimum of 384-clock hours designed to provide students opportunities to develop and apply generic practice skills in working with individuals, families, groups and communities. Prerequisites: SOW 5105, 5235, 5342, 5349, 5404. Corequisite: SOW 5125, 5324, and 5542. (S,SS)

SOW 5541 Advanced Standing Seminar (2). This course examines the integration of academic knowledge and social work skills that develop the practitioner's critical thinking foundation. Prerequisites or Corequisites: SOW 5125, SOW 5324. (SS)

SOW 5542 Integrative Field Seminar I (1). This bi-weekly seminar, taken concurrently with the first field practicum (SOW 5532), requires students to analyze their 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 at all levels. Majors only. Corequisites: SOW 5532 and SOW 5324. (S,SS)

SOW 5605* Medical Social Work (3). Principles of medical social work practice in hospitals and communities. Focuses on the social worker as part of the health care team, with basic knowledge of medical problems of

patients and their families. Prerequisite: Graduate or senior standing.

SOW 5614* Social Work Practice with Persons Affected by Domestic Violence (3). Course prepares students to appropriately identify, assess, and intervene with persons affected by domestic violence utilizing assessment and intervention strategies in practice. Prerequisite: Graduate or Senior standing with the permission of the instructor.

SOW 5621* Social Work with Refugees, Immigrants, and Migrants (3). Provides skills and knowledge responsive to the needs of immigrants and refugees and addresses influences of cultural, ethnic, gender, age, and class differences in acculturation and service delivery. Prerequisite: Graduate or Senior standing with the permission of the instructor.

SOW 5624* Feminist Therapy in Social Work (3). Reviews basic principles of feminist therapy and focuses on the application of feminist therapy in clinical social work practice. Prerequisite: Graduate standing or Permission of the instructor.

SOW 5635* School Social Work Practice (3). Designed to assist students in developing knowledge and skills necessary for effective social work practice in school settings. Promotes understanding of social work practice to improve the functioning of children. Prerequisites: SOW 5342 or Permission of the instructor.

SOW 5640 Foundations in Gerontology for Health Professions (3). Implications for health professions of the biological, cross-cultural, physiological, psychological, social, and societal contexts of aging.

SOW 5641* Understanding the Process of Aging (3). Study of the physical, psychosocial, and cultural factors affecting human development in late life, from a social work perspective. Prerequisites: Graduate or senior standing and Permission of the instructor. (F)

SOW 5665* Animal Assisted Treatment for Social Work (3) An introduction to the human animal bond and animal assisted treatment. There will be illustrations of programs using small animals, horses, and dolphins. Prerequisites: SOW 3313 or SOW 5342 or Permission of the instructor.

SOW 5689* Social Work Practice with Sexual Problems (3). Skills

applicable to sex-related concerns encountered in social work practice. Presents theories of the etiology of common sexual problems and explores treatment intervention modalities. Prerequisite: Graduate or senior level practice course or Permission of the instructor.

SOW 5710* Chemical Dependency and Social Work (3). An overview of chemical dependency in the social service delivery system including policy and program approaches, client assessment, treatment techniques and prevention issues. Prerequisites: SOW 4322 or SOW 5342 or Permission of the instructor.

SOW 5845* Counseling the Elderly (3). Applied gerontological knowledge to counseling skills required for independent as well as frail elderly clients. Course focuses on long and short term interventions in a range of practice settings. Prerequisite: SOW 5641 or Permission of the instructor.

SOW 5905* Individual Study (1-3). Individually selected program of advanced supervised study related to specific issues in social work and social welfare. Prerequisite: Permission of the instructor. (F,S,SS)

SOW 5932* Seminar in Social Work (3). An exploration of various critical issues of concern to the social work profession. Prerequisite: Graduate or senior standing.

SOW 6243 Child and Family Social Policy Issues (3). A comprehensive overview of the range of children and family policies, programs and issues in the U.S.A. in the context of comparing residual and institutional approaches to social service delivery, and policy implications for use of each approach. Prerequisite: Admission to concentration. (F)

SOW 6245 Social Welfare Policies and Services to the Elderly (3). The content of the course will center around the federal/state policies affecting the quality of life of the older person. Among the areas to be considered are an overview of the situation of the aged, specific public and private social welfare policies, including the origin of policy making, and problems involved in the process of implementation of social welfare policies for the elderly. Prerequisite: Admission to concentration. (F)

SOW 6247* Housing and Environmental Needs (3). Examination of

housing and broader environmental needs of individuals and families. Focus on needs for security, mobility, privacy, affiliation, and self esteem. Particular attention to the role of the professional social worker in meeting environmental needs. Prerequisites: SOW 5641 and SOW 6245.

SOW 6281* Legal Aspects of Social Work Practice (3). Introduction to legal aspects of social work practice including client and agency rights, malpractice issues, legal research, and practice interaction with legal counsel, legal services, and the courts. Prerequisite: SOW 5342. (F)

SOW 6351 Intervention Strategies in Marriage and Family (3). This course will provide students with an understanding and application of the major models of social work intervention in working with marriages and families, with critical analysis skills in assessing functioning across the life span and in implementing intervention techniques. The influence of cultural/ethnic differences and how these may affect family relationships and functioning will be assessed. Prerequisite: Admission to concentration. (F)

SOW 6359 Social Work Treatment with Families of the Elderly (3). Preventive and treatment approaches in social work practice with families of the elderly. Focus on aging family as client-system; knowledge, skills needed for a range of interventions are provided. Prerequisites: SOW 5641, SOW 6646.

SOW 6372 Supervision, Consultation and Staff Development (3). Key aspects of the social services supervisory situation are explored. This course emphasizes supervisory competence, issues facing supervisor and supervisee. Also explores consultation and staff development. Prerequisite: Admission to a concentration or Permission of the instructor.

SOW 6386* Social Program Planning and Development (3). Theory and practice of social program planning and development for organizations and communities. Social services to families, children and elderly, especially service needs for which programs do not exist will receive special emphasis. Prerequisite: Admission to a concentration or Permission of the instructor. (F)

SOW 6387* Social Services Management Skills (3). Learning units in which students practice and demonstrate, through simulation and participation, skills in major aspects of social services

management. Prerequisite: Admission to a concentration or Permission of the instructor.

SOW 6435 Evaluative Research in Social Work I (3). This course focuses on research designs for evaluating social work practice and social programs. The ethics, politics, and conduct of evaluative research are taught within the context of the purposes, values, and ethics of professional social work practices. Prerequisite: Admission to concentration or Permission of the instructor. (F,S)

SOW 6436* Empirically-Based Practice in Social Work (3). Advanced utilization of intervention effectiveness research results and techniques in social work practice with individuals, families and groups. Prerequisites: SOW 6435 and an advanced practice course in a concentration.

SOW 6535 Field Practicum II (8). This field practicum is a 516-clock hour supervised educational experience in an agency setting designed to provide the student with an opportunity to develop and practice social work skills in the student's area of concentration. Majors only. Prerequisites: Admission to concentration, SOW 6243, and SOW 6351. Corequisites: SOW 6655, and SOW 6435. (S,SS)

SOW 6543 Integrative Field Seminar II (1). This bi-weekly field seminar taken concurrently with the specialization field practicum in the concentration area requires students to analyze their field experience and integrate theory and practice. It provides an arena for various settings to come together in order to provide a richer understanding of social services. Majors only. Prerequisites: Admission to concentration, SOW 6243, and SOW 6351. Corequisites: SOW 6655, and SOW 6435. (S,SS)

SOW 6611 Advanced Practice with Family Systems (3). Advanced clinical skills in working with families and couples. Focus will be given to non-traditional change strategies such as family sculpting, family reenactment, family choreography and dramatization. Extensive use of video taped case simulations, co-therapy, live supervision and peer evaluation models. Prerequisite: SOW 6351 or Permission of the instructor.

SOW 6646 Social Work Practice with the Elderly (3). The knowledge and skills necessary for advanced social work practice in social agencies which deal with problems and issues of the

aging population in contemporary society. Pre or Corequisite: SOW 5641 and admission to concentration. (F)

SOW 6647 Advocacy in Social Work Practice (3). This course covers skills and knowledge necessary for the practice of advocacy on behalf of individuals and groups, including political, legislative, and organizational perspectives. Prerequisites: Admission to a concentration or permission of the instructor.

SOW 6649 Social Work Practice in Long Term Care and the Elderly (3). This course focuses on direct practice with the frail elderly and their families within the rapidly changing system of community and institutional long term care. Prerequisites: SOW 5641 and SOW 6646. (S)

SOW 6655 Intervention Strategies with Children and Adolescents (3). This course will provide students with the opportunity to select, apply and evaluate appropriate interventive strategies in working with children and adolescents. Specific attention to socio-cultural, gender and racial differences in understanding development issues and in critically assessing the applicability of practice theories. Prerequisite: Admission to concentration. Corequisite: SOW 6535 or an MSW degree. (S)

SOW 6656* Decision-Making in Child Placement (3). This course will stress decision-making and interventions when substitute care is considered or carried out. Termination of parental rights and the choice and timing of placements of children will be considered. Prerequisite: Admission to concentration or Permission of the instructor.

SOW 6914* Independent Research (1-6). Individually selected program of supervised data collection and analysis on specific topics in social work and social welfare. Prerequisite: SOW 5404 and Permission of the instructor. (F,S,SS)

SOW 7237 Research Topics in Micro-Practice Intervention (3). Analysis of research priorities in the development of effective interventions in the social welfare field. Prerequisite: Admission to Ph.D. program or Permission of the instructor. (F)

SOW 7238 Research Topics in Macro-Practice Intervention (3). This course focuses on intervention research and methods at the community, organizational and societal level. Prerequisite: SOW 7237. (S)

SOW 7492 Research Methods in Social Welfare I (3). Research purposes and methods concentrating on design, measurement, hypothesis testing, intervention assessment and analysis. Prerequisite or Corequisite: STA 6166 or equivalent. Prerequisite: Admission to Ph.D. program or permission of the instructor. (S)

SOW 7493 Research Methods in Social Welfare II (3). This second course in a two-semester sequence focuses primarily on design, measurement, and analysis issues in ethnographic field studies, surveys and group experiments for the evaluation of intervention technology in social welfare. Prerequisites: SOW 7492 and STA 6166, or equivalent. (SS)

SOW 7494 Advanced Social Welfare Research (3). Advanced research designs and data analysis techniques for use in developing interventions in social welfare. Prerequisites: SOW 7492 and SOW 7493. (F)

SOW 7682 Social Systems Models & Methods (3). Seminar examines philosophy, concepts, models, and methods of the systems approach and their applications to social work and the helping professionals with regard to problem solving, organizational functioning, and environmental change.

SOW 7916 Supervised Research (3). Directed experience in the conduct of research in social welfare and social work under the guidance of a faculty member. Must be taken twice for a total of six credits. Prerequisite: Completion of first year. (F,S)

SOW 7932 Interdisciplinary Seminar on Social Welfare Within an Urban Milieu (3). Academics from social work and allied disciplines and professions will discuss their theoretical interests and research activities. Prerequisite: Successful completion of first year of Doctoral program.

SOW 7936 Dissertation Seminar in Social Welfare (3). This course focuses on helping students with the development of the dissertation prospectus. Emphasis is placed on development of an acceptable research protocol in the students' specialization area. Prerequisites: SOW 7215, SOW 7237, SOW 7238, SOW 7492, and SOW 7493. (S)

SOW 7939 Seminar in Social Work Education (3). This course examines topics in social work education.

SOW 7980 Dissertation (3-12). This course provides dissertation guidance to doctoral candidates in the Ph.D. program in Social Welfare. Prerequisite: Ph.D. candidacy in Social Welfare. (F,S,SS)

*Social Work Electives

Certificate Programs

Criminal Justice

Graduate Certificate in Justice Administration and Policy Making

The Graduate Certificate in Justice Administration and Policy Making is a professional certificate designed to complement a range of professional activities, academic programs, and degrees in the field of criminal justice. The goals of the program are (1) to stimulate interest in the study of justice administration and policy making at the graduate level, (2) to promote graduate studies with a concentration in criminal justice, and (3) to provide practitioners in the field of criminal justice with a cluster of courses leading to a specialization in criminal justice.

Admission

Students must have a bachelor's degree from an accredited college or university. Students must be admitted to the certificate program by the Program Coordinator, who will serve as their faculty advisor. Admission to the graduate certificate program does not ensure admission to the Master's Degree in Criminal Justice (MSCJ) program. NOTE: Those students who apply for and are admitted to the Master of Science in Criminal Justice degree program may have their Certificate courses with a grade of 'B' or better credited toward the Master of Science in Criminal Justice degree.

Program of Study

A total of 15 successfully completed semester hours is required for the award of the Graduate Certificate in Justice Administration and Policy Making. Students must complete their program of study within three years from the date of their admission and receive no less than a 3.0 GPA in their program of study.

Core Required Courses

CCJ 5288	Legal Issues for Criminal Justice Administrators
CCJ 6058	Theory in the Administration of Justice
CCJ 6456	Administration and Management of Justice Agencies
CCJ 6716	Planning and Program Evaluation

Optional Courses

Select one of the following courses; substitution may be made with the approval of the faculty adviser.

CCJ 5605	Deviance and Social Control
CCJ 5935	Special Topics
CCJ 6477	Seminar in Information Systems

Law and Criminal Justice Certificate

The Law and Criminal Justice academic certificate is designed to provide legally-conscious students with concepts and information utilized by law professionals. Study shall include casework, procedures, court processes, research methods, and other introductory course work designed to enhance careers in the legal profession.

Admission

Students must be fully admitted to the Bachelor of Science degree in Criminal Justice or another bachelor degree program.

Certificate Award

The Certificate will be awarded upon completion of the required certificate courses and the bachelor degree requirements. The certificate will be posted on the student's transcript at the time the completion of the bachelor degree requirements is posted.

Required Criminal Justice Courses

The student shall complete a minimum of 18 semester hours of the following selected criminal justice courses with a minimum grade of 'C' in each course. Core criminal justice courses will not count for Criminal Justice majors.

CCJ 3271	Criminal Procedure	3
CCJ 3290	Judicial Policy Making	3
CCJ 3291	Judicial Administration	3
CCJ 4032	Crime and the Media	3
CCJ 4252	Criminal Justice and the Constitution	3
CCJ 4280	Law and Criminal Justice	3
CCJ 4282	Legal Issues in Corrections	3
CCJ 4752	Legal Research	3
CCJ 5xxx	Seminar in Criminal Law and Procedures	3
CCJ 5286	Comparative Law	3

Health Services Administration

Certificate in Gerontology

The objective of the certificate is to provide graduate students and qualified practitioners in the field of aging with a range of gerontological courses leading to a specialization in gerontology to supplement their chosen disciplines. Through provision of an in-depth understanding of the bio-socio-psychological nature of the aging process, and the relation of political and economic resources, the program's long range objective is to increase the knowledge and sensitivity of professionals in this area, and thereby improve the service delivery system for the increasingly large population of elderly Floridians.

Admission

Students must have a bachelor's degree and be admitted to the program by the Program Coordinator who will serve as their faculty advisor.

Program of Study: (18)

SOW 5641	Understanding the Process of Aging	3
NGR 5250	Physical Change and Healthy Aging	3
HTA 5226	Management of Long Term Care Systems	3

The balance of four courses to be selected from the following areas of concentration. Students who have not had direct practice with older people will be required to select an Individual Study course which will include 225 hours of practicum experience.

Long Term Care Administration

HTA 5225	Long Term Care Management I	3
HTA 5226	Management in Long Term Care	3
HTA 5227	Long Term Care Management II	3
HTA 5454	Ethical Decision Making in Health Services Administration	3
HTA 5816	Practicum in Long Term Care Management	3

Aging and Rehabilitation

OTH 5600	Study of Gerontology as Related to Occupational Therapy	3
OTH 5613	Interdisciplinary Approach to Aging	3
OTH 5630	Occupational Therapy Assessment of the Elderly	3
OTH 5764	Research (<i>topic selected in Geriatric Clinical Specialty</i>)	

- OTH 5905 Independent Study
(variable credit)
- PTH 6238 Motor Development:
Adult Through Geriatrics 3
- PTH 6239 Adult Congenital
Handicapping Conditions 3

Psychology of Aging

- DEP 5404 Proseminar in
Psychology of
Adulthood and Aging 3
- DEP 6438 Gerontological
Assessment 3
- DEP 6465 Psychology of Culture
and Aging 3
- DEP 6446 Cognitive Processes of
Aging 3

Social Work Practice with Older Persons

- SOW 5605 Medical Social Work 3
- SOW 5845C Counseling the Elderly 3
- SOW 5905 Individual Study 1-3
- SOW 6245 Social Welfare Policy
and Services for the
Elderly¹ 3
- SOW 6247 Housing and
Environmental Needs 3
- SOW 6359 Social Work Treatment
with Families of
Elderly¹ 3
- SOW 6646 Social Work Practice
with Elderly¹ 3
- SOW 6647 Advocacy in Social
Work Practice 3
- SOW 6649 Social Work Practice in
Long Term Care and the
Elderly 3

¹Open only to students with MSW degree or students in Master's degree program in Social Work.

Education

- ADE 5195 Designing Education
and HRD Programs for
Disadvantaged Adults 3

Criminal Justice

- CCJ 5935 Special Topics: Crime
and the Elderly 3

Graduate Certificate in Health Services Administration

The objective of the certificate is to provide individuals with masters, doctoral or equivalent degree to develop an understanding of the context and/or skills of health services administration. This certificate is designed to assist individuals to advance in professions or careers related to health services administration.

Admission

Students must have earned a masters, doctoral or equivalent degree with either a management or clinical base.

Such degrees would include but not be limited to the MBA, MD, DO, Masters of Nursing, Masters in Physical Therapy, etc. The student must be admitted to the certificate program by the Program Coordinator who will serve as the student's advisor. All students must submit a graduate application to the University and arrange for an interview with the Program Coordinator.

Program of Study: (18) Students with managerial backgrounds will take 6 credit hours:

- HSA 5125 Intro to Health Services 3
- HSA 6415 Management
Applications of Social
Determinates of Health 3
or

Students with clinical backgrounds will take 6 credit hours:

- HSA 6185 Health Organization and
Management 3
- URS 6654 Applied Organization
Theory and Behavior 3

All students will take the following 6 credits:

- HSA 6149 Strategic Planning and
Marketing of Health
Care Services 3
- HSA 6176 Financing and
Reimbursement of
Health Systems 3

One of the following two:

- HSA 6155 Health Policy and
Economics 3
- HSA 6717 Advanced Health
Services Management
Seminar 3

One of the following five:

- HSA 5225 Long Term Care
Management 3
- HSA 6197 Design and
Management of Health
Information Systems 3
- HSA 6205 Hospital and Health
Facility Organization 3
- HSA 6215 Managed Care
Administration 3
- HSA 6875 Administrative
Residency 3

Public Administration

Certificate in Human Resource Policy and Management

Human Resource Policy and Management is designed to give graduate students a range of policy-analytic and management skills. It provides training in alternative personnel systems, (civil service, collective bargaining, privatization and service contracting), personnel tech-

niques for productivity improvement, current issues, and ethics and professionalism. This certificate emphasizes the application of behavioral science concepts and techniques to employers in a multi-cultural context.

Admission

All applicants must hold a baccalaureate degree from an accredited college or university. Students must be admitted to the program by the Program Coordinator, who will also serve as their faculty advisor. Admission to a certificate program does not ensure admission to the master's degree in Public Administration (MPA) program.

Note: Those students who apply for and are admitted to the Master of Public Administration degree program may have Certificate courses credited toward an outside specialization in Human Resource Policy and Management. However, if students have enrolled in more than one certificate program, a maximum of 15 semester hours from the certificate program may be accepted into the MPA program.

Program of Study: (15)

The following course is required:

- URS 6130 Public Personnel
Administration 3

Four of the following nine courses must be taken to complete the certificate.

- PAD 5043 Government and
Minority Group
Relations 3
- PAD 5427 Collective Bargaining
and the Public Sector 3
- PAD 5435 Administrator and the
Role of Women 3
- PAD 5460 Productivity
Improvement 3
- PAD 5616 Contracting and
Managing Third Party
Governments 3
- PAD 6436 Professionalism and
Ethics 3
- PAD 6437 Dynamics of Individual
Growth 3
- PAD 6605 Administrative Law 3
- URS 6654 Applied Organization
Theory and Behavior 3

Students must complete their program of study within three years from the date of admission and receive no less than 3.0 GPA.

Graduate Certificate Program in Environmental Health

The Graduate Certificate Program seeks to provide graduate level instruction in environmental health to non-graduate-degreed practitioners. Upon completion of the certificate program the student will be able to develop, implement, manage, and assess environmental and occupational contaminants programs for local, state and Federal regulatory agencies. The program has been developed to allow working professionals in Public Health to expand or upgrade their skills and to provide incremental academic steps for individuals heading towards their first or second professional degree in environmental health sciences. Online courses in Fall 2001.

Program Requirements

The Graduate Certificate Program requires the completion of 18 graduate credits. The student must demonstrate proficiency in the identification and characterization of human and ecological exposures to environmental and occupational contaminants. Students who are proficient in any one area covered by the required courses may choose from selected alternative courses to complete their requirements.

Required Courses: (18)

PHC 6315	Public Health and Environmental Management
PHC 6355	Public Health and Occupational Health and Safety
PHC 6xxx	Environmental and Occupational Toxicology
PHC 6307	Environmental Health Monitoring and Laboratory
PHC 6xxx	Environmental and Occupational Epidemiology
PHC 6004	Injury Epidemiology and Violence Prevention

Admission Requirements

Applicants must hold a bachelor's degree or equivalent from an accredited college or university, and must have completed a prerequisite graduate course in biostatistics or social science statistics.

Graduation (completion) Requirements

Completion of 18 graduate credits with an overall 'B' average.

Certificate in Public Management

This professional certificate program will provide students with a thorough understanding of the managerial concepts and techniques of public administration and is designed particularly for those who already have a professional field of specialization.

Admission

All applicants must hold a baccalaureate degree from an accredited college or university. Students must be admitted to the program by the Program Coordinator, who will serve as their faculty advisor. Admission to a certificate program does not ensure admission to the master's degree in Public Administration (MPA) program.

Note: Those students who apply for and are admitted to the Master of Public Administration degree program may have Certificate courses credited toward the MPA core. However, if students have enrolled in more than one certificate program, a maximum of 15 semester hours from the certificate program may be accepted into the MPA program.

All certificate applicants will be encouraged to acquire proficiency in the use of microcomputers prior to initial registration. Applicants without this proficiency may wish to take PAD 5716, Information Systems for Public Organizations, prior to, or concurrent with, initial course work.

Program of Study: (15)

PAD 6053	Political, Social, and Economic Context of PA	3
URS 6654	Applied Organization Theory and Behavior	3
PAD 6227	Public Finance and & Budgetary Process	3
URS 6xxx	Human Resource Policy and Management	3
PAD 5934	Contemporary Issues in Public Administration	3

Students must complete their program of study within three years from the date of admission and receive no less than a 3.0 GPA.

Social Work

Post-MSW Certificate in Clinical Practice

This certificate program is designed for MSW practitioners who specialized in macro/administrative or generalist practice and wish to increase their knowledge and skills in direct services/clinical practice with services to children and families of the elderly. In most cases, MSW practitioners completing this certificate will have the requisite MSW course work for clinical licensure in the state of Florida.

The post-MSW Certificate in Clinical Practice program of study is under revision. Students should anticipate changes in the 6000 level courses.

Program of Study

SOW 5125	Human Behavior and Social Environment II- Psychopathology
SOW 6351	Intervention Strategies with Marriage and the Family
	or
SOW 5643	Understanding the Process of Aging
SOW 6655	Advanced Intervention Strategies with Children and Adolescents
	or
SOW 6646	Social Work Practice with the Elderly
	Social Work Elective (clinical)
SOW 6535	Field Practicum II
SOW 6543	Integrative Field Seminar II

College of Health and Urban Affairs

Dean **Ronald M. Berkman**
 Associate Dean **Evelyn B. Enrione**
 Associate Dean **David Bergwall**
 Assistant Dean **Welker Mitchell**
 Assistant Dean **Marta M. Medina**
 Assistant Dean **Lourdes Rassi**

Directors, Chairs, and Coordinators:
 School of Health **Carol DeLong Pyles**
 (Interim)

Dietetics and Nutrition **Michele Ciccazzo**
 Health Information Management **Odalys Martinez**,
 (Acting)

Occupational Therapy **Susan Kaplan**

Physical Therapy **Leonard Elbaum**
 Public Health **H. Virginia McCoy**

Communication Sciences and Disorders **Lemmietta McNeilly**

School of Nursing **Divina Grossman**

School of Policy Management **Gloria Deckard**
 (Interim)

Criminal Justice **Suman Kakar**

Health Services Administration **Vandon E. White**

Public Administration **Donald Klingner**

School of Social Work **Ray Thomlison**

Faculty
Abdel-Moty, Alma, M.S., O.T.R.
 (Florida International University),
 Clinical Assistant Professor,
 Occupational Therapy

Albertini, Velmarie, M.S.W. (Florida International University), Instructor, Student Services Coordinator

Anderson, Barbara V., M.S., M.T. (ASCP), S.B.B., (Ohio State University), Assistant Professor, Medical Laboratory Sciences

Anderson, Lori, Ed.D., O.T.R. (Nova Southeastern University), Visiting Clinical Assistant Professor

Averch, Harvey, Ph.D. (University of North Carolina), Professor, Public Administration

Bacarisse, L. Yvonne, M.S.W.

A.C.S.W., L.C.S.W. (Tulane University), Associate Professor, Social Work and Associate Dean, Undergraduate Studies

Batavia, Andrew, J.D. (Harvard University), Associate Professor, Health Services Administration

Baum, Marianna, Ph.D. (Florida State University), Professor,

Dietetics and Nutrition
Beaulaurier, Richard, Ph.D.
 (University of Southern California),
 Assistant Professor, Social Work

Bergwall, David, D.B.A. (George Washington University), Associate Professor, Health Services Administration and Associate Dean

Berkman, Ronald M., Ph.D. (Princeton University), Professor, Public Administration and Dean

Blais, Kathleen, RN, Ed.D. (Florida Atlantic University), Associate Professor and Associate Director, Undergraduate Programs, Nursing

Bloch, Elise, M.Ed., O.T.R. (Queens College, City University of New York), Clinical Assistant Professor, Occupational Therapy

Brenner, Mary, M.S., R.D. (Florida International University), Clinical Instructor, Dietetics and Nutrition

Brody, Jacob, A., M.D. Courtesy Professor

Brown, Arlene, Ph.D. (Florida International University), Instructor and Coordinator of Broward Programs, Social Work

Byrnes, Joseph P., M.P.A. (Florida International University), Instructor and Associate Director, Criminal Justice

Carroll, James, Ph.D., J.D. (Syracuse University), Professor, Public Administration

Castellanos, Victoria Hammer, Ph.D., R.D. (University of California-Davis), Assistant Professor, Dietetics and Nutrition

Ciccazzo, Michele W., Ph.D., R.D. (Florida State University), Associate Professor and Chair, Dietetics and Nutrition

Cohen, David, Ph.D. (University of California-Berkeley), Professor, Social Work and Ph.D. Coordinator

Cohn, Ellen, Ph.D. (University of Cambridge), Associate Professor, Criminal Justice

Connors, Veronica, Ph.D., Ed.D., R.N. (University of Texas, University of Houston), Professor, Nursing

Cornely, Helen Z., M.S., P.T. (Nova University), Assistant Professor, Physical Therapy

Culver, Charles M., M.D., Ph.D., Courtesy Professor

Curry, Katharine R., Ph.D., R.D., (Southern Illinois University), Professor Emeritus, Dietetics and Nutrition

D'Agati, Suzanne, Ed.D., O.T.R. (Florida International University), Assistant Professor, Occupational Therapy

D'Alessio, Stewart, Ph.D. (Florida State University), Assistant Professor, Criminal Justice

Darrow, William, Ph.D. (Emory University), Professor, Public Health

Dawson, Thomas, J. Jr., MHSA, Courtesy Assistant Professor

Deckard, Gloria, Ph.D. (University of Missouri), Associate Professor, and Interim Director, School of Policy Management

De La Rosa, Mario, Ph.D. (Ohio State University), Associate Professor, Social Work

Delpech, Paula, MSN, RN, ARNP, (Florida International University), Assistant Director for Admissions and Student Services, Nursing

Dixon, Zisca, Ph.D., R.D. (Texas A&M University) Associate Professor, Dietetics and Nutrition

Dumaine, Marian, Ph.D. (Florida International University), Assistant Professor and Coordinator of Field Education, Social Work

Easton, Penelope S., Ph.D., R.D. (Southern Illinois University), Professor Emeritus, Dietetics and Nutrition

Eitle, David J., Ph.D. (Indiana University), Assistant Professor, Criminal Justice

Elbaum, Leonard, Ed.D., P.T. (Florida International University), Associate Professor and Chair, Physical Therapy

Ellis, Alvalia, ARNP, MS (Barry University), Instructor, Nursing

Enrione, Evelyn B., Ph.D., R.D. (Purdue University), Associate Professor, Dietetics and Nutrition, and Associate Dean

Fairchild, Susan, Ed.D., R.N. (Nova Southeastern University), Associate Professor, Nursing

Fernandez, Jose, R. M.D., Courtesy Assistant Professor

Fingerhut, Scott, J.D. (Emory University), Visiting Instructor, Criminal Justice

Foster, Rosebud, Ed.D. (University of Miami), Professor, Health Services Administration

Frank, Howard, Ph.D. (Florida State University), Associate Professor, Public Administration

Freeman, Edward, Ph.D., R.N., A.R.N.P., C.S. (University of California-San Francisco), Professor, Nursing

Friedemann, Marie-Luise, Ph.D., R.N., C.S. (University of Michigan), Professor, Nursing

Fuller, Donald, Ph.D. CCC (Purdue University), Associate Professor,

- Communication Sciences and Disorders*
- Galindo-Ciocon, Daisy, Ph.D., ARNP**, (University of Miami), Associate Professor, Nursing
- Garcia-Zamor, Jean-Claude, Ph.D.** (New York University), Professor, Public Administration
- Gasana, Janvier, M.D., Ph.D.** (University of Illinois-Chicago), Assistant Professor, Public Health
- George, Valerie, Ph.D.** (Universite Laval), Assistant Professor, Dietetics and Nutrition
- Gil, Andres, Ph.D.** (University of Miami), Associate Professor, Social Work
- Gonzalez, Cynthia, M.S., P.T., O.C.S., A.T.C.** (University of Miami), Visiting Instructor, Physical Therapy
- Granville, Mirta, ARNP, MSN, FNP**, (California State University-Long Beach), Clinical Assistant Professor, Nursing
- Grossman, Divina, Ph.D., R.N., A.R.N.P., C.S.** (University of Pennsylvania), Professor and Director, Nursing
- Gusman, Lori, M.S., P.T.** (Florida International University), Clinical Assistant Professor, Physical Therapy
- Hamilton, Margaret, D.N.S., R.N.** (Indiana University), Assistant Professor, Nursing
- Haskins, Awilda R., Ed.D., P.T.** (Florida International University), Associate Professor, Physical Therapy
- Hayden, Mary Helen, M.S.W., A.C.S.W., L.C.S.W.** (Florida State University), Assistant Professor and B.S.S.W. Coordinator, Social Work
- Hills, Gail A., Ph.D., O.T.R., F.A.O.T.A.** (University of Maryland), Professor, Occupational Therapy
- Himburg, Susan P., Ph.D., R.D., FADA** (University of Miami), Professor, Dietetics and Nutrition
- Hlaing, Way Way, Ph.D.** (University of South Florida), Assistant Professor, Public Health
- Huffman, Fatma, Ph.D., R.D.** (Auburn University), Professor, Dietetics and Nutrition
- Jaffe, Amy, M.S., R.D.** (Florida International University), Clinical Instructor, Dietetics and Nutrition
- Janos, Steve, M.S., P.T., O.C.S.** (Northwestern University), Assistant Professor, Physical Therapy
- Jenkins, Sarah, RN, MSN** (Indiana University), Clinical Assistant Professor, Nursing
- Jones, Rosa L., D.S.W., A.C.S.W., L.C.S.W.** (Howard University), Associate Professor, Social Work and Vice Provost, Academic Affairs, and Dean, Undergraduate Studies
- Jones, Sandra, Ph.D., R.N., A.R.N.P., C.S.** (Barry University), Assistant Professor, Nursing
- Jorda, Marie Louise, ARNP, MPH** (University of North Carolina-Chapel Hill), Instructor, Nursing
- Kakar, Suman, Ph.D.** (University of Florida), Associate Professor, and Coordinator Criminal Justice
- Kaplan, Susan H., Ph.D., MBA, O.T.R.** (University of Miami), Associate Professor and Chair, Occupational Therapy
- Keppler, William J., Ph.D.** (University of Illinois), Professor, Public Health
- Kirk-Sanchez, Neva, M.S., P.T.** (University of Miami), Assistant Professor, Physical Therapy
- Klingner, Donald, Ph.D.** (University of Southern California), Professor and Coordinator, Public Administration
- Knecht, Ann Marie, M.S., O.T.R.** (University of Southern California), Clinical Assistant Professor, Occupational Therapy
- Koppel, Monte H., Ph.D.** (New School for Social Research), Professor, Social Work
- Levenson, Jill, M.S.W., L.C.S.W.** (University of Maryland), Visiting Instructor, Social Work
- Lewis, Ralph G., Ed.D.** (Harvard University), Associate Professor, Public Administration
- Lizardo, Maria Lourdes, ARNP, Ed.D.** (Florida International University), Lecturer, Nursing
- Lobar, Sandra, ARNP, Ph.D.** (University of Miami), Associate Professor, Nursing
- Lowe, John, RN, Ph.D.** (University of Miami), Assistant Professor, Nursing
- Lu-Guo, Kristina, Ph.D.** (Florida International University), Assistant Professor, Health Services Administration
- McCoy, H. Virginia, Ph.D.** (University of Cincinnati), Associate Professor and Chair, Public Health
- McDonough, John, Ed.D., R.N., C.R.N.A.** (Drake University), Clinical Professor, Nursing
- McNeilly, Lemmietta, Ph.D., C.C.C.** (Howard University), Associate Professor and Chair, Communication Sciences and Disorders
- Macgowan, Mark J., Ph.D., L.C.S.W.** (Barry University), Assistant Professor, Social Work
- Madayag, Tomas, RN, Ed.D.** (University of Sarasota), Assistant Professor, Nursing
- Magnus, Marcia H., Ph.D.** (Cornell University) Associate Professor, Dietetics and Nutrition
- Malecki, Jean, M.D., MPH**, Courtesy Professor
- Maring, Joyce R., M.S., P.T.** (Boston University), Clinical Assistant Professor, Physical Therapy
- Marques, Jose A., M.S.W., A.C.S.W.** (Barry University), Associate Professor, Criminal Justice
- Martinez, Odalys, B.S., RHIA** (Florida International University), Instructor and Acting Chair, Health Information Management
- Martinez, Ramiro, Ph.D.** (Ohio State University), Associate Professor, Criminal Justice
- Mills, Gerald, Ph.D.** (Georgia State University), Assistant Professor, Health Services Administration
- Mitchell, Welker, Ph.D.** (Florida International University), Instructor, Social Work and Assistant Dean
- Monseratte, Jorge, R.D.** (Texas Woman's University), Clinical Assistant Professor, Dietetics and Nutrition
- Newman, Frederick, Ph.D.** (University of Massachusetts), Professor, Health Services Administration
- Nield-Anderson, Leslie, Ph.D., R.N., C.S.** (New York University), Associate Professor, Nursing
- O'Hara, Peggy, Ph.D.** Courtesy Professor
- Parchment, Yvonne, ARNP, MSN** (University of Miami), Instructor, Nursing
- Patterson, Joseph, Dr. P.H.** (University of California-Los Angeles), Professor Emeritus, Public Health
- Patterson, Valerie L., Ph.D.** (Florida International University), Instructor and Associate Director, Public Administration
- Patton, Richard, M.P.H., R.D.** (University of North Carolina), Clinical Assistant Professor, Public Health
- Peery, Jace, RN, MSN** (University of Alaska), Instructor, Nursing
- Phillips, Suzanne, ARNP, Ed. D.** (Florida International University), Associate Professor, Nursing

- Porter, Luz, ARNP, Ph. D.** (*New York University*), Professor and Associate Director, Graduate Programs, Nursing
- Potocky-Tripodi, Miriam, Ph.D.** (*University of Kansas*), Associate Professor, Social Work
- Ramos, Elaine, Ph.D., C.C.C.-S.L.P.** (*University of Massachusetts*), Assistant Professor, Communication Sciences and Disorders
- Rassi, Lourdes, Ph.D.** (*University of Miami*), Assistant Dean and Visiting Professor, Public Administration
- Revell, Keith D., Ph.D.** (*University of Virginia*), Assistant Professor, Public Administration
- Rice, Christopher, Ph.D.** (*Washington University*), Assistant Professor, Social Work
- Richmond, Charlotte, Ph.D., R.N.** (*University of Texas Health Science Center at San Antonio*), Visiting Assistant Professor, Nursing
- Rivers, James E., Ph.D.** (*University of Kentucky*), Associate Professor and Director, Metropolitan Center
- Roberts, Lisa, M.S., P.T., G.C.S.** (*Nova Southeastern University*), Assistant Professor, Physical Therapy
- Rose-St. Prix, Colleen, MHSA, P.T.** (*Florida International University*), Associate Professor, Physical Therapy
- Rosenbaum, Allan, Ph.D.** (*University of Chicago*), Professor, Public Administration
- Salas, Luis P., J.D.** (*Wake Forest University*), Professor, Criminal Justice
- Scott, Patricia, Ph.D., MPH, O.T.R.** (*Florida International University*), Associate Professor, Occupational Therapy
- Sfakianari, Eleni, M.D., MSPH,** Courtesy Professor
- Shaffner, Pamela, M.S., O.T.R.** (*University of Florida*), Clinical Associate Professor
- 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, Criminal Justice
- Stempel, Robert, Dr. P.H.** (*University of California-Berkeley*), Associate Professor, Public Health
- Stolzenberg, Lisa, Ph.D.** (*Florida State University*), Assistant Professor, Criminal Justice
- Terry, W. Clinton, Ph.D.** (*University of California-Santa Barbara*), Associate Professor, Criminal Justice
- Thomlison, Barbara, Ph.D.** (*University of Toronto*), Professor and Acting Director, Institute for Children and Families At Risk, Social Work
- Thomlison, Ray, Ph.D.** (*University of Toronto*), Professor and Director, Social Work
- Tomchik, Robert S., M.D., MPH,** Courtesy Professor
- Turner, Jay R., Ph.D.** (*Syracuse University*), Professor and Director, of the Life Course and Health Research Center
- Van Den Bergh, Nan, Ph.D.** (*University of Pittsburgh*), Associate Professor and MSW Program Coordinator, Social Work
- Vardalis, James, D.P.A.** (*Nova University*), Associate Professor, Criminal Justice
- Verdi, Michele, M.S.W.** (*Florida International University*), Visiting Instructor, Social Work
- Wagner, Eric F., Ph.D.** (*University of Pittsburgh*), Associate Professor, Social Work, Director, Teen Intervention Project
- Wallace, Joan S., Ph.D.** (*Northwestern University*), Professor and Associate Director, Social Work
- Weddle, Dian O., Ph.D., R.D., FADA** (*University of Illinois*), Associate Professor, Dietetics and Nutrition
- Wellman, Nancy S., Ph.D., R.D., FADA** (*University of Miami*), Professor, Dietetics and Nutrition
- White, Vandon E., Ph.D.** (*Purdue University*), Professor, Health Services Administration
- Williams, Judith K., Ph.D.,** Courtesy Associate Professor
- Wong, Stephen, Ph.D.** (*Western Michigan University*) Associate Professor and Ph.D. Program Coordinator, Social Work

School of Hospitality Management

School of Hospitality Management

Joseph J. West, *Dean and Professor*
Lee C. Dickson, *Associate Dean and Associate Professor*
Rocco M. Angelo, *Associate Dean and Professor*
Adele E. Smith, *Associate Dean and Associate Professor*
Sidney Beiler, *Visiting Assistant Professor*
Elio C. Bellucci, *Professor*
Ahmed Bouabdellah, *Visiting, Assistant Professor*
Cheryl M. Carter, *Instructor*
Patrick J. Cassidy, *Instructor*
Percival Darby, *Assistant Professor*
M. Nancy Del Risco, *Visiting Associate Professor*
Marcel R. Escoffier, *Associate Professor*
Peter Goffe, *Associate Professor and Director, Luzern Program*
Fritz G. Hagenmeyer, *Professor*
William M. Hansen, *Instructor*
William Hebrank, *Adjunct Instructor*
Michael E. Hurst, *Professor Emeritus*
Charles L. Ilvento, *Professor*
Lendal H. Kotschevar, *Professor Emeritus*
Gerald W. Lattin, *Professor Emeritus*
Anthony G. Marshall, *Dean Emeritus*
Steven V. Moll, *Associate Professor and Director, Broward Program*
Elisa Moncarz, *Professor*
Michael J. Moran, *Instructor*
William J. Morgan, Jr., *Professor Emeritus*
Diann R. Newman, *Instructor*
William G. O'Brien, *Associate Professor*
Alan J. Parker, *Professor and Director, Center for Tourism and Technology*
Nestor Portocarrero, *Professor*
Roger Probst, *Instructor*
William J. Quain, *Professor*
Joan S. Remington, *Instructor and Director, Career Development; Director, The Center for Hospitality and Tourism Education and Research*
J. Kevin Robson, *Associate Professor*
Donald G. Rosellini, *Lecturer*
Kennard Rutkowski, *Academic Advisor and Instructor*
David M. Talty, *Instructor*
Mary L. Tanke, *Associate Professor*
Jinlin Zhao, *Associate Professor*

The School of Hospitality Management offers Bachelor's and Master's Degrees and Certificate Programs that combine practical experience with classroom theory to assist the student to gain the

understanding, skills, and techniques needed to qualify for job opportunities and to achieve his or her career goals in the hospitality industry.

With the cooperation of industry executives, the School has created an internship program which literally utilizes the hotels, resorts, restaurants, clubs, airlines, travel agencies, and cruise lines as practice labs for students. The advanced phase of the graduate internship program provides each student a structured training experience normally not available to a student until he or she has entered the industry after graduation.

An Industry Advisory Board - which includes outstanding executives in the hotel, food and tourism 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 Florida Board of Regents.

Note: The programs, policies, requirements, and regulations listed 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 may be made without advanced notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Location

The School is located on 200 tropical acres in a resort-like setting at the scenic Biscayne Bay Campus at Biscayne Boulevard (U.S.1) and Northeast 151 Street, North Miami, Florida.

Admission

Applicants to the School must submit an Application for Admission to the University and must follow the regular University admission procedures described in the Admission section of the catalog. Applicants must be eligible for admission to the University before admission to the School.

Each candidate for admission to the graduate program must present his or her score on the GRE 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 division work or attain a minimum score of 1000 on the GRE (verbal and quantitative aptitude sections) or a minimum score of 450 on the GMAT. Students entering with a 3.0 GPA may be "provisionally admitted" pending receipt of an acceptable GRE or GMAT score. The GRE or GMAT exam must be taken during the student's first semester at FIU. All students must achieve an acceptable GRE or GMAT score prior to full admission and graduation. A minimum TOEFL score of 550 is required for international applicants.

Applicants who meet admissions criteria, but do not have undergraduate preparation in Hospitality Management, must complete a series of undergraduate preparatory courses. Specific courses will depend upon the individual's undergraduate preparation. Twenty-four credit hours of preparatory courses normally will be required. Undergraduate prerequisite courses may be taken at FIU in combination with required graduate courses. A maximum of six semester hours of related graduate credit may be transferred from another university or from the graduate programs of this University.

There is a requirement that all students complete 1000 hours of practical training work experience in the Hospitality Industry in addition to the Graduate Internship of 300 hours. A minimum of 800 hours of the total 1300 hours must be completed while enrolled at FIU. Work experience documentation is required.

Degree Requirements

To be eligible for a Master's degree, a student must:

1. Satisfy all University requirements for a master's degree.
2. Complete a minimum of 39 semesters hours of graduate level course work in the Hospitality and Tourism Management curriculum. (Exception: Executive Hospitality Management Track).
3. Earn a minimum grade point average of 'B' (3.0) in all approved courses in the student's graduate program of study.
4. Earn an acceptable score on the GRE or GMAT.

No courses, in which a grade below 'C' is earned, may be counted toward the Master's Degree in Hospitality and Tourism Management. However, all approved work taken as a graduate student will be counted in computing the grade point average, including courses graded 'D' or 'F'.

Non-Degree Seeking Students

Individuals currently employed in the hospitality field, who do not have the educational requirements to meet degree admission standards, 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 Non-Degree Seeking Student for a total of 12 semester hours.

Master of Science in Hospitality and Tourism Management*

Undergraduate Prerequisites (24)

HFT 3403	Accounting for the Hospitality Industry	3
HFT 4464	Financial Analysis in the Hospitality Industry	3
HFT 4474	Management Accounting for the Hospitality Industry	3
FSS 3230C	Introductory Commercial Food Production	3
FSS 4234C	Advanced Food Production	3
HFT 4802	Catering Management	3
HFT 3503	Hospitality Marketing Strategy	3
HFT 3603	Law for the Hospitality Industry	3
HFT 4227	Travel Industry Law	3
ENC 3311	Advanced Research Writing	3

Attendance at Dean's Lectures

Core Requirements (27)

HFT 6246	Organizational Behavior in the Hospitality Industry	3
HFT 6245	Hospitality/Tourism Service Operations Analysis	3
HFT 6296	Strategic Management for Hospitality and Tourism	3
HFT 6299	Case Studies in Hospitality Management	3
HFT 6555	e-Commerce for the Hospitality Industry	3

HFT 6586	Research and Statistical Methods	3
HFT 6477	Financial Management for the Hospitality Industry	3
HFT 6476	Feasibility Studies for the Hospitality Industry ¹	3
HFT 6478	Restaurant Development ¹	3
HFT 6697	Hospitality Law Seminar	3
HFT 6946	Graduate Internship	0

Graduate Hospitality Management Electives: 12

¹In place of HFT 6476 or HFT 6478 and two electives, the student may choose to complete HFT 6916, the Hospitality Industry Research Project, which carries a nine credit hour requirement. An additional graduate statistics course will be required.

Master of Science in Hospitality and Tourism Management*

Travel and Tourism Track

Undergraduate Prerequisites (24)

HFT 3403	Accounting for the Hospitality Industry	3
HFT 4464	Financial Analysis in the Hospitality Industry	3
HFT 4474	Management Accounting for the Hospitality Industry	3
FSS 3230C	Introductory Commercial Food Production	3
FSS 4234C	Advanced Food Production	3
HFT 4802	Catering Management	3
HFT 3503	Hospitality Marketing Strategy	3
HFT 3603	Law for the Hospitality Industry	3
HFT 4227	Travel Industry Law	3
ENC 3311	Advanced Research Writing	3
Attendance at Dean's Lectures		

Core Requirements (27)

HFT 6246	Organizational Behavior in the Hospitality Industry	3
HFT 6296	Strategic Management for Hospitality and Tourism	3
HFT 6555	e-Commerce for the Hospitality Industry	3
HFT 6697	Hospitality Law Seminar	3

HFT 6245	Hospitality/Tourism Service Operations Analysis	3
HFT 6586	Research and Statistical Methods	3
HFT 6477	Financial Management for the Hospitality Industry	3
HFT 6476	Feasibility Studies for the Hospitality Industry ¹	3
HFT 6478	Restaurant Development ¹	3
HFT 6299	Case Studies in Hospitality Management	3
HFT 6946	Graduate Internship	0

Graduate Hospitality Management Travel and Tourism Track Electives: 12

HFT 6507	Tourism Marketing on the Internet	3
HFT 6706	Environmental Management Systems for Tourism	3
HFT 6711	Tourism and Economics	3
HFT 6712	Tourism Planning and Regional Development	3

Graduate Internship

Required for all graduate students unless prior experience warrants a waiver of this requirement (see advisor for information).

For students in the Travel and Tourism Track, this internship must be track related.

Industry Experience

Requirement: 1300 hours

1000 hours of hospitality related practical training work experience is required plus 300 hours for the Graduate Internship. A minimum of 800 hours must be completed while enrolled in the graduate program at FIU. Work experience documentation is required.

Master of Science in Hospitality and Tourism Management*

Executive Masters Track Hospitality and Tourism Management: (30)

Management Experience

A minimum of five years hospitality related management experience is required for acceptance into this track. Applicants must currently hold a

management position in the hospitality or tourism industry. A Bachelor's degree from an accredited institution and an acceptable score on GRE or GMAT exam required.

Undergraduate Prerequisites: 9

HFT 3403	Accounting for the Hospitality Industry	3
HFT 4464	Financial Analysis in the Hospitality Industry	3
HFT 4474	Management Accounting for the Hospitality Industry	3

Core Requirements (30)

HFT 6226	Motivation and Leadership in the Hospitality Industry	3
HFT 6697	Hospitality Law Seminar	3
HFT 6555	e-Commerce for the Hospitality Industry	3
HFT 6296	Strategic Management for Hospitality and Tourism	3
HFT 6245	Hospitality/Tourism Service Operations Analysis	3
HFT 6446	Hospitality Enterprise Technologies	3
HFT 6477	Financial Management for the Hospitality Industry	3
HFT 6476	Feasibility Studies for the Hospitality Industry	3
HFT 6478	Restaurant Development	3
HFT 6876	Emerging Topics in Food & Beverage Management	3
HFT 6299	Case Studies in Hospitality Management	3

Evening courses available.

*The Master's degree in Hospitality and Tourism Management is subject to approval by the Florida Board of Regents.

Course Descriptions

Definition of Prefixes

FSS - Food Service Systems; HFT - Hotel, Food, Tourism.

FSS 6108 Purchasing and Menu Planning (3). Advanced information on sources, grades and standards, criteria for selection, purchasing and storage for the major foods, including 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 6365 Foodservice Systems (3). Principles of system analysis applied to the foodservice 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 Foodservice Design Operations (3). Advanced planning, programming, and project documentation for commercial food service facilities. Spatial, environmental, and electro-mechanical design factors are stressed, with particular emphasis on efficiency modulation and investment aspects. Recommended: HFT 4343

FSS 6834 Foodservice Research (3). 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 5545 Leadership Training for Team Building (3). Students will learn leadership skills to facilitate team building activities in order to improve group communication, trust, problem-solving, and productivity.

HFT 5595 Problems in Marketing (3). Team-work analysis and recommended solution of actual marketing problems and case studies. Prerequisite: HFT 3503.

HFT 5655 Franchising and Management Contracts (3). A comprehensive course designed to examine the franchise/franchisor, franchisee and owner/manager relationships in hotel and foodservice operations and the mutual obligations created by each type of contract. Prerequisite: HFT 3603.

HFT 5719 Implementation and Management of Tourism Projects (3). Practical development, implementation, and management of tourism projects and programs with emphasis on developing tour packages for international and developing nation's situations. Prerequisites: HFT 3700 or equivalent.

HFT 5877 World of Wine and Food (3). An intensive study of wines from around the world and how they pair

with foods. Guest chefs will prepare tapa size portions of food to be paired with local and specific wines.

HFT 5901, 5906, 5911 Independent Studies (VAR). With permission from the Associate Dean, students may engage in independent research projects and other approved phases of independent study.

HFT 6225 Multicultural Human Resources Management for the Hospitality Industry (3). A study of personnel, consumer relations, and diversity in the hospitality industry within a multicultural, multiracial, and multiethnic society through an examination of value systems and cultural characteristics.

HFT 6226 Motivation and Leadership (3). Study of motivation, perception, learning, attitude formation, incentive theory, and job satisfaction, with emphasis on leadership and group task performance.

HFT 6227 Hospitality Management Training Systems (3). A course designed to develop and provide applications of proven training systems and methods for managers in the hospitality industry. The case study method will be used.

HFT 6228 Managing Self and Others in the Hospitality Industry (3). Students will increase managerial effectiveness by learning and applying a model for enhancing self-esteem and integrating that model into their managerial philosophy for the hospitality industry.

HFT 6245 Hospitality/Tourism Service Operations Management (3). Application of techniques to create, operate staff and evaluate service systems for hospitality/tourism enterprises. Emphasis on queues, forecasting demand, route and scheduling and quality management.

HFT 6246 Organizational Behavior in the Hospitality Industry (3). 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 6247 Competitive Methods of Multinational Hospitality Companies (3). Course synthesizes theories and concepts of globalization, multinational

strategy and international business studies and applies them in the analysis of multinational hospitality companies.

HFT 6256 International Hotel Operations (3). A consideration of 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. Prerequisite: HFT 3403, HFT 3503.

HFT 6278 Timeshare Management (3). Course covers management, marketing, sales legislation, financing, and budgeting of timeshare and vacation ownership properties. Opportunity to gain AEI certification.

HFT 6296 Strategic Management for Hospitality and Tourism (3). Developing competitive advantage in the Hospitality Industry including a strategy project where an incumbent faces off against a new entrant. Team will develop strategic business plans. Prerequisite: HFT 4464, HFT 3503, and computer literacy.

HFT 6297 Seminar in Management Methods (3). 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 6299 Case Studies in Hospitality Management (3). Case studies are used to analyze and integrate the various disciplines of hospitality management and the visitor industry. A critical attitude toward all administrative and management thought is encouraged.

HFT 6325 Hospitality Facilities Engineering and Management (3). Hospitality facilities management from value-oriented system engineering perspective emphasizing management responsibilities for efficiency in building design, operations and utilities systems. Prerequisites: HFT 3403.

HFT 6346 Design and Planning of Restaurants and Hotels (3). Advanced level of study of all aspects considered in designing and planning a restaurant or hotel. Includes lectures,

case studies, and laboratory drawing exercises. Scheduling and cost controls considered. Prerequisite: HFT 3263

HFT 6404 Non Commercial and Contract Foodservice Management (3). Advanced management of foodservice operations in noncommercial facilities, self operated and contract managed. Includes business and industry, health care, campus dining, correctional, and foodservice vending.

HFT 6446 Hospitality Enterprise Technologies (3). Advanced course in information technology in the hospitality industry. Includes study of ERP software and data. Prerequisite: Knowledge of spreadsheets and word processing is essential.

HFT 6447 Hotel Information Systems (3). A seminar on computer systems and their applications within the hotel industry. An intensive study of a computerized property management system. All computer applications are examined, from reservations to the back office through a series of assignments and projects. Prerequisites: HFT 3423 or HFT 6446.

HFT 6476 Feasibility Studies for the Hospitality Industry (3). In-depth study of the tools and techniques available for evaluating financial feasibility of a hospitality investment. Feasibility study required. Prerequisites: HFT 3503 and HFT 4464.

HFT 6477 Financial Management for the Hospitality Industry (3). A study of financial management and its application in the Hospitality Industry. Topics include capital investment analysis, mergers and current financial issues. Emphasis is placed on maximizing shareholder value. Prerequisite: HFT 4464, HFT 4474, and computer literacy.

HFT 6478 Restaurant Development (3). A study of the procedures to research and develop a restaurant from concept to opening. Emphasis will be on market research, site development, financial feasibility, and the formulation of an operating plan for an individual restaurant. Prerequisites: HFT 3503 and HFT 4464.

HFT 6486 Investment Analysis for the Hospitality Industry (3). Advanced investment methods and opportunities with emphasis on securities of the hospitality industry, financing techniques, syndication, negotiations. Prerequisites: HFT 6446 and HFT 4464.

HFT 6494 Restaurant Information Systems (3). An in-depth study of principles relating to use of computer systems in the restaurant and foodservice industry. The student is required to implement a simulated restaurant on computer systems. This simulation includes personnel files, daily management, menu explosion and analysis, and inventory tracking. A research project will be assigned. Prerequisite: HFT 3423 or HFT 6446.

HFT 6507 Tourism Marketing on the Internet (3). An in-depth study of Internet Web site Hosting for tourism managers, including a detailed examination of the current practices of on-line tourism marketing and tourism destination management systems. Prerequisite: HFT 3503, HFT 6555.

HFT 6525 Sales Tactics for Hospitality Industry (3). Advanced course investigating sales tactics and procedures used in hospitality sales environment. Practical application role plays and skill rehearsals used. Prerequisite: HFT 3503.

HFT 6526 Sales Management for the Hospitality Industry (3). Analyzes strategic processes for competitive sales management in hospitality industry. Uses critical thinking models, decision-making simulations and field operation assessments for managing sales function. Prerequisite: HFT 3503.

HFT 6555 e-Commerce for the Hospitality Industry (3). Planning and managing e-Commerce for hospitality global distribution systems, including major opportunities, limitations, issues and risks from managerial perspectives. Prerequisite: HFT 3503 and computer literacy.

HFT 6586 Research and Statistical Methods (3). A practical study of basic research and statistical methodology 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 (3). Team-work analysis and recommended solution of an actual marketing problem and development of a marketing plan for hospitality business. Prerequisite: HFT 3503.

HFT 6605 Legislation and the Hospitality Industry (3). An advanced study of the legislative requirements imposed upon hospitality industry operators. Special emphasis is placed

on the minimum wage law, sales tax, uniform provision and maintenance, tip credit, the determination of what constitutes hours worked for the various job categories, discrimination, and sexual harassment. Prerequisite: HFT 3603.

HFT 6697 Hospitality Law Seminar (3). New laws and their impact on the hospitality industry are examined. Students research current legal issues and problems and explore the impact of new legislation on the hospitality industry. Prerequisite: HFT 3603.

HFT 6705 Management of Nature-Based Tourism (3). Exploration of research methods and findings related to eco-tourism. Review of effective management strategies for controlling nature-based tourism operations.

HFT 6706 Environmental Management Systems for Tourism (3). An in-depth examination of the environmental cost of tourism development. The effective implementation of international models as well as environmental practices for sustainable tourism development will be studied.

HFT 6711 Tourism and Economics (3). Provides an in-depth examination of the Global Tourism Market utilizing quantitative methods to measure and forecast the development of tourism as a strategic economic activity. Prerequisites: HFT 3403 and HFT 4464.

HFT 6712 Tourism Planning and Regional Development (3). An in-depth examination of the process of identifying needs, objectives and strategies for tourism development. The formulation and evaluation of tourism policies and plans will be studied. Prerequisite: HFT 6476.

HFT 6756 Convention and Meeting Management (3). Advanced study of planning, arranging, marketing, implementing, and managing conventions and meetings. Prerequisite: HFT 3503.

HFT 6806 Recreational Foodservice Management (3). Advanced study of financial planning and operational methods used by recreational food service management companies at stadiums, coliseums, arenas, convention centers, amusement parks, parimutuels, state and national parks, and other recreational areas.

HFT 6876 Emerging Topics in Food and Beverage (3). An in-depth study of current issues and topics confronting the food and beverage industry and how they impact future business

practices. Management implications addressed.

HFT 6916 Hospitality Industry Research Project (3-9). An individualized business research-oriented 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 (0-3). Structured hospitality practical training work experience involving training program and job rotations not previously performed. Ten week/300 hour minimum. Report and management project required. Prerequisite: Documented completion of 1000 hospitality related work hours of which at least 500 hours must be completed while enrolled at FIU. Permission of instructor.

School of Hospitality Management

Dean Joseph J. West
 Associate Dean Lee C. Dickson
 Associate Dean Adele E. Smith
 Associate Dean Rocco M. Angelo

Faculty

Angelo, Rocco M., M.B.A. (*University of Miami*), Professor, Management and Associate Dean

Beitler, Sidney, Ed.S. (*Florida Atlantic University*), Visiting Assistant Professor, Hospitality Technology

Bellucci, Elio C., J.D. (*Boston College*), Professor, Law

Bouabdellah, Ahmed, Ph.D. (*Laval University*), Visiting Assistant Professor, Tourism

Carter, Cheryl M., M.S. (*Florida International University*), Instructor, Tourism

Cassidy, Patrick J., B.S. (*Florida International University*), Instructor, Wine Technology

Darby, Percival, M.S. (*Florida International University*), Assistant Professor, Management

Del Risco, M. Nancy, Ph.D. (*University of Paris*), Visiting Associate Professor, Tourism

Dickson, Lee C., M.B.A. (*Babson College*), Associate Professor, Management and Marketing and Associate Dean

Escoffier, Marcel R., M.S. (*Florida International University*), Associate Professor, Management

Goffe, Peter, J.D. (*University of Miami*), Associate Professor, Marketing and Director, Luzern Program

Hagenmeyer, Fritz, G., M.A. (*Cornell University*), Professor, Hotel Engineering

Hansen, William M., M.S. (*Florida International University*), Instructor, Club and Catering Management

Hurst, Michael E., M.A. (*Michigan State University*), Professor Emeritus

Ilveto, Charles L., M.B.A., C.P.A. (*Cornell University*), Professor, Accounting and Finance

Kotschevar, Lendal H., Ph.D. (*Columbia University*), Professor Emeritus

Lattin, Gerald W., Ph.D. (*Cornell University*), Professor Emeritus

Marshall, Anthony G., J.D. (*Syracuse University*), Dean Emeritus

Moll, Steven V., M.S. (*Florida International University*), Associate Professor, Management and

Director, Broward Program

Moncarz, Elisa S., B.B.A., C.P.A. (*Baruch College*), Professor, Accounting and Finance

Moran, Michael J., B.S. (*Florida International University*), Instructor, Food Management

Morgan, William J., Jr., Ph.D. (*Cornell University*), Professor Emeritus

Newman, Diann R., Ed.D. (*Nova Southeastern University*), Instructor, Human Relations

O'Brien, William G., M.S. (*Florida International University*), Associate Professor, Information Systems Management

Parker, Alan J., Ph.D. (*Columbia University*), Professor, Information Systems Management and Director, The Center for Tourism and Technology

Portocarrero, Nestor, B.B.A. C.P.A. (*University of Miami*), Professor, Accounting and Finance

Probst, Roger D., B.S. (*University of New Haven*), Instructor, Food Management

Quain, William J., Ph.D. (*University of New Orleans*), Professor, Management and Marketing

Remington, Joan S., J.D. (*Willamette College*), Instructor, Tourism and Marketing, and Director, Career Development; Director, The Institute for Hospitality and Tourism Education and Research

Robson, J. Kevin, M.S. (*Florida International University*), Associate Professor, Food Management

Rosellini, Donald G., J.D. (*Northwestern University*), Lecturer Management

Rutkowski, Kennard J., B.S. (*Florida International University*), Instructor, Foodservice Management and Academic Advisor

Smith, Adele E., M.S. (*Auburn University*), Associate Professor, Management and Associate Dean

Talty, David M., B.S. (*Florida State University*), Instructor, Management.

Tanke, Mary L., Ph.D. (*Purdue University*), Associate Professor, Management

West, Joseph J., Ph.D. (*Virginia Polytechnic Institute and State University*), Professor, Management and Dean

Zhao, Jinlin, Ph.D. (*Virginia Polytechnic Institute and State University*), Associate Professor, Management

School of Journalism and Mass Communication

School of Journalism and Mass Communication

J. Arthur Heise, *Professor and Dean*
Lillian Lodge Kopenhagen, *Professor*
and *Associate Dean*

William Adams, *Associate Professor*
Catherine B. Ahles, *Associate*
Professor

Margo Berman, *Associate Professor*
Cheryl Berry, *Associate Professor*
Courtney Bosworth, *Assistant*
Professor

Humberto Delgado, *Associate*
Professor

Mario Diamant, *Associate Professor*
Kathleen Donnelly, *Assistant*
Professor

Hugh Gladwin, *Director, Institute for*
Public Opinion Research

Ann Goraczko, *Coordinator, Institute*
for Public Opinion Research

Charles Green, *Director,*
International Media Center

Kevin Hall, *Editor-in-Residence*
Heloiza Herscovitz, *Visiting Associate*
Professor

David L. Martinson, *Professor*
Michael McQueen, *Associate*

Professor and Chairperson,
Department of Journalism and
Broadcasting

Teresa Ponte, *Associate Professor*

Patricia B. Rose, *Professor and*
Chairperson, Department of
Advertising and Public Relations

Janas Sinclair, *Assistant Professor*

Don Sneed, *Professor*

Adriana Stella, *Assistant Director,*
Student Services

Carlos Suris, *Director, Student*
Resource Center

Saul Sztam, *Director, Student Services*

Lorna Veraldi, *Associate Professor*

John Virtue, *Deputy Director,*
International Media Center

Master of Science in Mass Communication

The School of Journalism and Mass Communication is fully accredited by the Accrediting Council on Education in Journalism and Mass Communications. Only 25 percent of all Schools of Journalism and Mass Communication in the United States are fully accredited. The graduate program of the School of Journalism and Mass Communication offers professional education leading to the M.S. in Mass Communication with current specializations in student media advising, integrated communications: advertising and public relations, journalism and Spanish-language journalism. The

orientation of the graduate program is primarily professional, not theoretical. The program is designed to enhance graduates' abilities to work in the mass communication professions.

Admission Requirements

To be eligible for admission to the graduate program, applicants must meet the following requirements:

1. All applicants must have a bachelor's degree from a regionally accredited college or university.

2. All candidates must show promise of success in graduate studies. The faculty will consider the following criteria in making this determination:

Minimum GPA: Candidates must have a minimum grade point average (GPA) of 3.0 earned during the junior and senior undergraduate years.

Graduate Record Examination (GRE): The GRE or upon request from the candidate in certain cases - the Graduate Management Admission Test (GMAT) is required. Passing score for the GRE is at least 1000 on the verbal and quantitative portions; passing score for the GMAT is 500. However, if the undergraduate GPA is proportionally higher, a lower GRE/GMAT score can be accepted. No applicant will be admitted to the master's program if his or her GRE score is lower than 850 or GMAT score is lower than 425 or if he/she scores lower than 500 on the verbal portion of the GRE or lower than a 30 on the verbal or 3 on the written portion of the GMAT. Applicants who have taken the GRE more than five years from the date of admission have to repeat the GRE examination.

3. Students applying to the Spanish-language Journalism program must take the PAEG. Minimum passing score for the PAEG is 500.

4. A detailed statement explaining why the applicant wants to pursue the M.S. in Mass Communication.

5. All candidates whose native language is not English must present a minimum score of 550 on the Test of English as a Foreign Language (TOEFL). This requirement may be modified for applicants for special versions of the master's program taught, in part, in languages other than English. Candidates who have passed a TOEFL more than two years before they apply for admission to the program have to repeat the test with the required score.

Application Procedures

A student applying for admission to the graduate program must:

1. Submit an application for admission to the University Admissions Office.

2. Have two official copies of transcripts from all colleges or universities attended sent to the Admissions Office. (Copies submitted by applicants will be rejected.)

3. Submit appropriate scores to the Admissions Office.

Admission Deadline

Students wishing admittance to the graduate program must apply at least six weeks prior to the start of classes of their first term of graduate study and submit all required scores and paperwork.

Degree requirements

Plan of Study/Commencement of Program

Upon admission to the graduate program in mass communication, each student will be assigned a faculty advisor by the appropriate department chair. In most cases, this will be the director of the appropriate graduate program. The advisor will be responsible for developing the student's plan of study, requesting applicable transfer of credit where appropriate, monitoring the student's academic progress, and ensuring the fulfillment of the requirements for the master's degree by completing the student's Program of Studies with the student. This will also include a timetable for completion of the work. Any changes in the plan must be approved by the faculty advisor and the appropriate chairperson. It is also the faculty advisor's responsibility to complete a Graduate GPA Course Inclusion Form for classes that are part of the master's program but were taken prior to the student's full admission and/or are lower division classes.

In addition to the development of a plan of study, the advisor must evaluate any deficiencies including, but not limited to the following areas which may require additional course work.

Competence in Statistics

Competence in the fundamentals of statistics is required. Competence is demonstrated by students showing that a course has been taken in statistics

before they are allowed to register for MMC 5445 (Applied Research Methods in Mass Media). A student who has not taken a statistics course must register for and take an undergraduate course prior to taking MMC 5445.

Writing and Word Processing Proficiency

Students must pass a grammar proficiency exam with a score of 70 in order to graduate from the program. The exam is provided each semester and is a prerequisite for MMC 6950 (Professional Project.) Students who fail the test must re-take it. Students can schedule time in the SJMC Writing Lab which is available for self-tutoring or, as an alternative, complete the school's undergraduate writing course, MMC 3104C, with a grade of B or better. (No graduate credit is given for this course.) The proficiency exam consists of multiple choice grammar and syntax questions. Students must have computer word processing skills. Typed work will be required throughout the program. For more information, visit or website at: <http://jmc1ab1.fiu.edu>.

Students in the Spanish-language master's program must pass a proficiency exam in Spanish, which will include grammar and syntax. The test will be taken on campus at the beginning of the program of study. Passing the exam is a graduation requirement. Students who do not pass the exam will be recommended to enroll in additional courses or provided additional review materials to assist them. Other opportunities to take the exam will be provided each semester.

Professional Experience

Professional experience in a field directly related to the specialization the student plans to pursue is an advantage. Applicants without such professional experience may be required to complete up to 9 credits of additional undergraduate course work and/or to complete an internship with a professional organization. After an interview with the applicant, the student's faculty advisor will determine the amount of undergraduate work and the undergraduate courses to be completed.

Transfer Credit

Students may petition the appropriate advisor to transfer up to six hours of graduate credit toward the degree. To be approved for transfer, the courses must have been previously taken at a

regionally accredited college or university; the student's advisor must judge the courses relevant to the student's plan of study; the student must not have used the credits toward another degree; and the student must have earned a 'B' or higher in the courses. No transfer courses will substitute for skills courses in any area of specialization in the SJMC master's program. All transfer credit must have been completed within the six-year period preceding the date the degree is granted.

Time Limit

All work applicable to the degree, including transfer credit, must be completed within six years.

Grades

Students must maintain a minimum GPA of 3.0 in all courses required for the degree. No more than two 'C' grades will be allowed in computing that 3.0 GPA.

Professional Project, Thesis

Students complete a professional project in their areas of specialization. Work on the project will generally be taken during the final semester. Projects will be graded by the student's graduate committee. Students must receive a 'B' or higher on the project for it to be accepted. Students may also opt to do a thesis; grade requirements are the same.

Required Courses

To earn the M.S. in Mass Communication, students must meet the following requirements:

1. Students must take at least 36 hours of acceptable graduate credit. Of those hours, all courses in the SJMC taken toward graduation must be at the graduate level.

2. At least 27 hours must be in School of Journalism and Mass Communication courses.

Student Media Advising

Designed primarily for journalism teachers and/or student media advisors on all levels, the program will train teachers/advisors or those aspiring to the profession in areas related to everyday work.

Core Curriculum

All students must take the following core courses:

MMC 6402	Theories of Mass Communication	3
MMC 5445	Applied Research Methods in the Mass Media	3

MMC 6950	Professional Project	3
In addition to the core courses, students in the student media advising specialization must take the following courses:		
JOU 5806	Student Media Advising	3
MMC 5207	Ethical and Legal Foundations of the Student Press	3
MMC 6635	Contemporary Issues in Mass Communication	3
VIC 5205	Trends in Graphic Design	3

Students must also take two additional three-credit graduate courses in the School of Journalism and Mass Communication in an appropriate area of emphasis. Courses must be approved by the student's advisor.

Nine hours must be in a field of concentration outside the School of Journalism and Mass Communication. A minimum of three of those credits have to be at the graduate level (5000 or 6000 level).

Integrated Communications: Advertising and Public Relations (ICAP)

This evening and Saturday morning ICAP program is designed to give students a general background in strategic communications and to help them prepare for advancement in advertising, public relations and integrated communications careers – whether corporate, agency or non-profit. It is designed for students who work full time. While a few students take nine credit hours per semester, many take only three or six.

For additional information about the ICAP program, please contact the program coordinator at 305-919-5625 or email SJMC@FIU.EDU

Core Curriculum (9 credits)

All students must take the following core courses:		
MMC 6402	Theories of Mass Communication	3
MMC 5445	Applied Research Methods in the Mass Media	3
MMC 6416	The Literature of Integrated Communications	3
MMC 6950	Professional Project	3
In addition to core courses, ICAP students must take the following program courses: (27 credits)		
ADV 6805	Creative Advertising and Public Relations Execution	3
MMC 6635	Contemporary Issues in Mass Communication	3

alism in general. The focus of the program will be on reading, writing, and thinking. All courses will be taught in Spanish. Some courses may be offered off-campus.

Interested students should contact the department for additional information and course requirements.

Course Descriptions

Definition of Prefixes

ADV-Advertising; JOU-Journalism; MMC- Mass Media Communication; PUR-Public Relations; RTV-Radio-Television; VIC-Visual Communication.

All courses required for the degree will be offered at least once during the term of the student's enrollment.

ADV 6355 Advertising and Society (3). The relationship between advertising, economic, political, moral, and ethical issues.

ADV 6503 Seminar in Advanced Creativity (3). Theoretical and practical application of variable topics including creative problem solving, design, web advertising, pop culture, and IMC tools. Progressive level of difficulty. Prerequisite: Permission of the instructor.

ADV 6805 Creative Advertising and Public Relations Execution (3). Writing and visualization relevant to developing creative executions for integrated communications problems. Prerequisite: PUR 5806. (Offered at least once a year).

JOU 5806 Student Media Advising (3). Designed to assist teachers and advisors 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. (Offered at least once a year).

JOU 6107 Advanced Public Affairs Reporting (3). A journalist's examination of the judicial system, from police headquarters to the courtroom. Prerequisite: Graduate standing.

JOU 6118 Project Reporting (3). Working one-on-one with a faculty member, the student completes research for Professional Project while learning to shape and report an ambitious, extended article or series.

JOU 6119 Advanced Print Reporting (3). Traditional and innovative reporting techniques, from searching archives and interviewing, to manipulating databases and scouring the Internet. Students also wrestle with legal, ethical dilemmas. Prerequisite: JOU 6193.

JOU 6125 The Cyberjournalist (3). Students progress beyond a simple knowledge of how to use electronic databases into the realm of mining and manipulating vast data pools such as the U.S. Census.

JOU 6183 Judicial System Reporting (3).

JOU 6185 Covering the City I (3). Basic reporting. Students cover breaking stories against daily deadlines. Readings/viewings are aimed at helping students analyze and compare a wide range of media. Prerequisite: Graduate standing.

JOU 6186 Covering the City II (3). Theme coverage of forces (economics, politics, etc.) that shape cities. Enterprise reporting with significance and context, and its legal and ethical implications. Includes municipal-budget analysis. Readings/viewings: Original works or original thinkers.

JOU 6187 Covering the City III (3). Students produce the prototype for a city magazine, from start to finish. Readings: a broad sampling of magazines.

JOU 6193 Thinking Like a Writer (3). Principles and techniques that are common to good writing, regardless of the medium. Students learn to read, observe and think as writers.

JOU 6194 Thinking Like a Writer II (3). Continuation of 1st writing course, with emphasis on elegance at sentence level. Also explores interrelationships of story telling, editing and design. Readings: Poynter anthology.

JOU 6196 Thinking Like a Writer III (3). Continuation of 1st and 2nd semester writing courses, with emphasis on producing the long piece. Direct support of the writing of Professional Project. Readings/viewings: Pulitzer, Emmy winners.

JOU 6931 Seminar on Special Topics (1-3). Instruction in specialized areas of journalism. Prerequisite: Graduate standing

MMC 4940 Media Practicum (0-3). Structured field-work experience in media environment.

MMC 5207 Ethical and Legal Foundations of the Student Press (3). Examines ethical and legal foundations underlying the operation of the student press on American campuses, stressing both rights and responsibilities and how to organize publications to protect both. (Offered at least once a year).

MMC 5445 Applied Research Methods in the Mass Media (3). An advanced course in the acquisition and use of secondary data, including media data, as well as the design, execution and utilization of research studies. Students will conduct an original proprietary study. Prerequisite: STA 3013 or equivalent. (Offered at least once a year).

MMC 5932 Special Topics Seminar (3). A variable topic seminar dealing with issues of interest to the community. Examples are rights of high school journalists, cable TV, the use of mini-computers in creative communication. (Offered at least once a year).

MMC 6402 Theories of Mass Communication (3). Examines theories and processes of mass communication as well as media responsibility to society and the social and ethical responsibility of communicators. (Offered at least once a year).

MMC 6416 The Literature of Integrated Communication (3). Survey of current and important literature in the field of integrated communications and its importance and application for ICAP managers.

MMC 6503 The Literature of Integrated Communication (3). Survey of current and important literature in the field of integrated communication and its importance and application for ICAP managers.

MMC 6635 Contemporary Issues in Mass Communication (3). Contemporary issues regarding media responsibility to society and the social responsibility of communicators. Analysis and evaluation of media ethics and performance. Prerequisite: Graduate standing. (Offered at least once a year).

MMC 6950 Mass Communication Professional Project (3). The professional project is designed to demonstrate the student's excellence in an area of communication study. Must be completed within one semester. Prerequisites: Completion of all required courses. Completion of 27 credit hours and Permission of the instructor.

PUR 5406 Multi-Cultural Communications (3). Explores the multi-cultural dimensions of communications with diverse audiences both internationally and within the United States. Prerequisite: Permission of the Instructor.

PUR 5602 Integrated Communications Proseminar (0). Lectures/discussion by distinguished educators/industry professionals and graduate faculty on topics designed to introduce participants to the various components and applications of Integrated Communications: Advertising and Public Relations (ICAP) graduate study.

PUR 5607 Advertising and Public Relations Management (3). Operations and objectives of integrated advertising and public relations activities and programs utilizing case studies on budgeting, ethics, media planning/relations, promotions and direct marketing. Prerequisite: PUR 5806.

PUR 5806 Integrated Communications: Account Planning (3). Advanced study in developing, planning and evaluating strategic integrated communications programs and campaigns. Prerequisite: Permission of the instructor. (Offered at least once a year).

PUR 6935 Advanced Public Relations Seminar (3). A series of readings, discussions and presentations immerse students in contemporary issues in Advertising and Public Relations. Prerequisite: Permission of the instructor. (Offered at least once a year).

RTV 5806 Telecommunication Management Structures (3). Intensive study of telecommunication management problems, theory of same, solutions of same through practical application and examination of case studies. Prerequisite: Graduate standing.

RTV 5935 Seminar in International Comparative Broadcasting Systems (3). Introduction to international telecommunication systems with special emphasis on broadcasting. Comparison with other countries. Prerequisite: Graduate standing or Permission of the instructor.

RTV 5936 Seminar in New Mass Communication Technologies (3). Discussion of new communication technologies and their influence on the society. Prerequisite: Graduate standing.

RTV 6309 Advanced Broadcast News (3) Advanced instruction and practice in news writing, reporting and interviewing for broadcast media. Prerequisite: MMC 4940.

RTV 6465C Field Production Practicum (3). The student will be responsible for the organization and complete pre-production, production, and post-production of his/her project(s). Prerequisite: Graduate standing.

RTV 6468C Studio Production Practicum (3). The student will be responsible for the organization and complete pre-production, production and post-production of his/her project(s). Will also be required to do directing and I.D. work. Prerequisite: Graduate standing.

RTV 6937 Decision Making in Broadcast Journalism (3). The roles and ratings, research, visuals, technology and non-news management in choice of news personnel, assignments, content and scheduling. analysis of legal and ethical implications. Prerequisite: Graduate standing.

VIC 5205 Trends in Graphics and Design (3). Design principles and how they relate to trends in student and professional media, including newspapers, magazines and yearbooks. Deals with graphics, packaging, typography and modern design. (Offered at least once a year). (Supplies fee assessed).

VIC 6XXXL The Language of Visual Communication (3). A course that explores the relation between image and message in the media. Topics include the role and effects of imagery in news and documentary presentations, ethics of visual messages and the impact of technology on visual journalism.

School of Journalism and Mass Communication

Dean **J. Arthur Heise**

Associate

Dean **Lillian Lodge Kopenhaver**

Chairperson, Advertising
and Public Relations **Patricia Rose**

Chairperson, Journalism
and Broadcasting **Michael McQueen**

Faculty

Adams, William, M.A. (*University of Wisconsin*), Associate Professor, Journalism and Mass Communication

Ahles, Catherine, M.B.A. (*Michigan State University*), Associate Professor, Journalism and Mass Communication

Berman, Margo, M.M. (*University of Miami*), Associate Professor, Journalism and Mass Communication

Berry, Cheryl, M.S. (*Northwestern University*), Visiting Associate Professor, Journalism and Mass Communication

Bosworth, Courtney, Ph.D. (*University of Georgia*), Assistant Professor, Journalism and Mass Communication

Delgado, Humberto, M.A. (*Goddard College*), Associate Professor, Journalism and Mass Communication

Diament, Mario, M.A. (*Antioch College*), Associate Professor, Journalism and Mass Communication

Donnelly, Kathleen, Ph.D. (*Dublin City University*), Assistant Professor, Journalism and Mass Communication

Gladwin, Hugh, Ph.D. (*Stanford University*), Director, Institute for Public Opinion Research

Goraczko, Ann, M.S. (*Florida International University*), Coordinator, Institute for Public Opinion Research

Green, Charles, B.A. (*Christian International University*), Director, International Media Center

Hall, Kevin, B.A. (*Fordham University*), Editor-in-Residence, Journalism and Mass Communication

Heise, J. Arthur, Ph.D. (*Syracuse University*), Professor and Dean, Journalism and Mass Communication

Herscovitz, Heloiza, Ph.D. (*University of Florida*), Assistant Professor, Journalism and Mass Communication

Kopenhaver, Lillian Lodge, Ed.D. (*Nova Southeastern University*), Professor and Associate Dean, Journalism and Mass Communication

Martinson, David L., Ph.D. (*University of Minnesota*), Professor, Journalism and Mass Communication

McQueen, Michael, M.A. (*Florida Atlantic University*), Associate Professor and Chairperson, Department of Journalism and Broadcasting, Journalism and Mass Communication

Ponte, Teresa, J.D. (*Rutgers University School of Law*), Associate Professor, Journalism and Mass Communication

Rose, Patricia, M.B.A. (*University of Miami*), Professor, and Chairperson Department of Advertising and Public Relations, Journalism and Mass Communication

Sinclair, Janas, Ph.D. (*University of Florida*), Assistant Professor, Journalism and Mass Communication

Sneed, Don, Ph.D. (*Southern Illinois University*), Professor, Journalism and Mass Communication

Suris, Carlos, M.L.S. (*University of South Florida*), Director, Student Resource Center, Journalism and Mass Communication

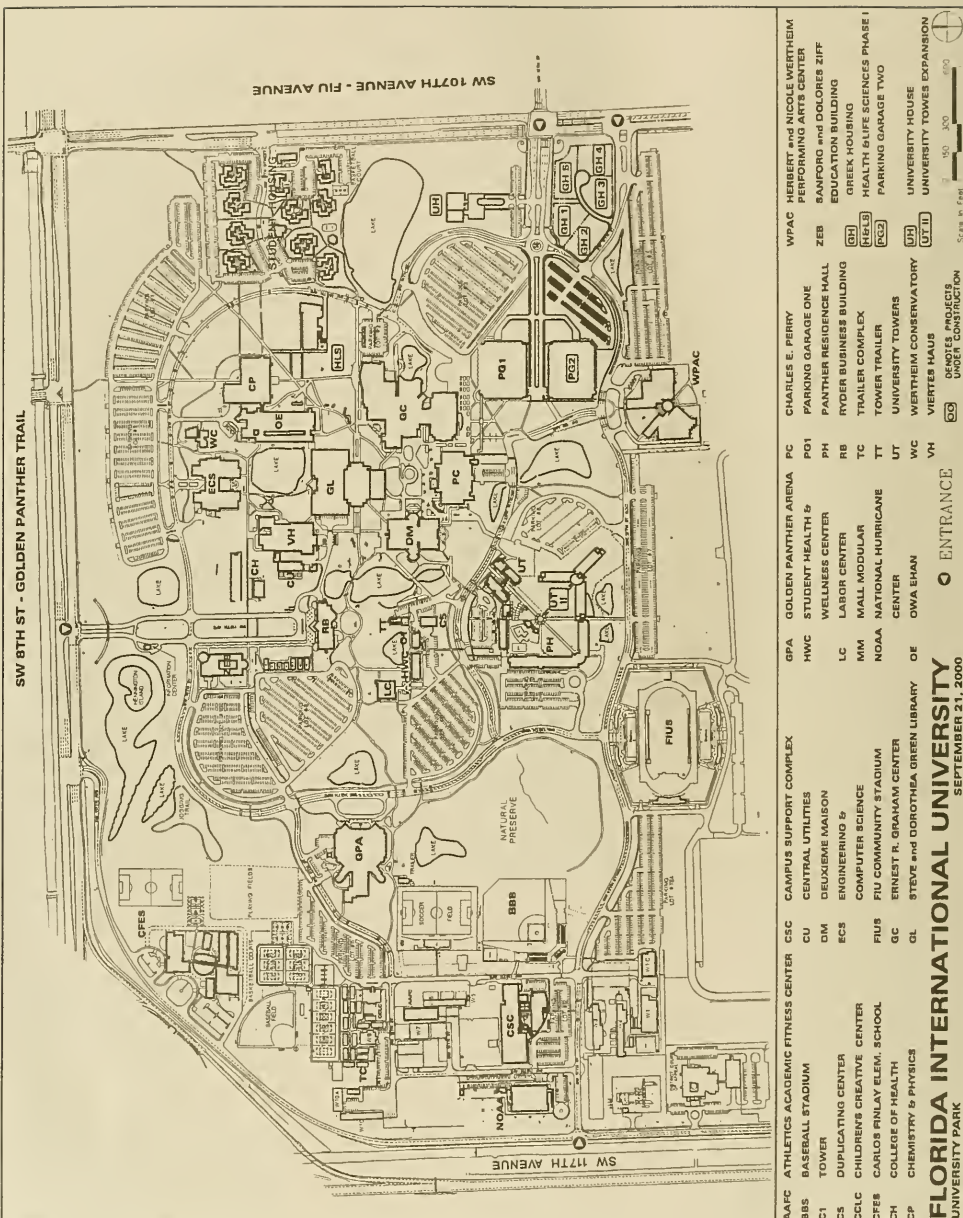
Veraldi, Lorna, J.D. (*New York School of Law*), Associate Professor, Journalism and Mass Communication

Virtue, John, B.A. (*Carleton University*), Deputy Director, International Media Center

SW 8TH ST - GOLDEN PANTHER TRAIL

SW 10TH AVENUE - FIU AVENUE

SW 11TH AVENUE



AAPC	ATHLETICS ACADEMIC FITNESS CENTER	CSC	CAMPUS SUPPORT COMPLEX	GPA	GOLDEN PANTHER ARENA	PC	CHARLES E. HERRY PARKING GARAGE ONE	WPAC	HERBERT and NICOLE WERTHEIM PERFORMING ARTS CENTER
BBS	BASEBALL STADIUM	CU	CENTRAL UTILITIES	HWC	STUDENT HEALTH & WELLNESS CENTER	PH	PANTHER RESIDENCE HALL	ZEB	BANFORD and DOLORES ZIFF EDUCATION BUILDING
C1	TOWER	DM	DEUXIEME MAISON	LC	LABOR CENTER	RB	RYDER BUSINESS BUILDING	GH	HEALTH SCIENCES PHASE I
C2	Duplicating Center	ECM	ENGINEERING & COMPUTER SCIENCE	MM	MALL MODULAR	TT	TRAILER COMPLEX	GH	HEALTH SCIENCES PHASE II
CCLC	CHILDREN'S CREATIVE CENTER	FIUS	FIU COMMUNITY STADIUM	NOAA	NATIONAL HURRICANE CENTER	UT	TOWER TRAILER	PCS	PARKING GARAGE TWO
CFES	CARLOS FINLAY ELEM. SCHOOL	QC	ERNEST R. GRAHAM CENTER	OF	OWA EBAN CENTER	WC	UNIVERSITY TOWERS	UH	UNIVERSITY HOUSE
CH	COLLEGE OF HEALTH	GL	STEVIE and DOROTHY GREEN LIBRARY	UT	UT	VH	UNIVERSITY TOWERS EXPANSION UNDER CONSTRUCTION	UT-II	UNIVERSITY HOUSE
CP	CHEMISTRY & PHYSICS								

FLORIDA INTERNATIONAL UNIVERSITY
UNIVERSITY PARK
SEPTEMBER 21, 2000

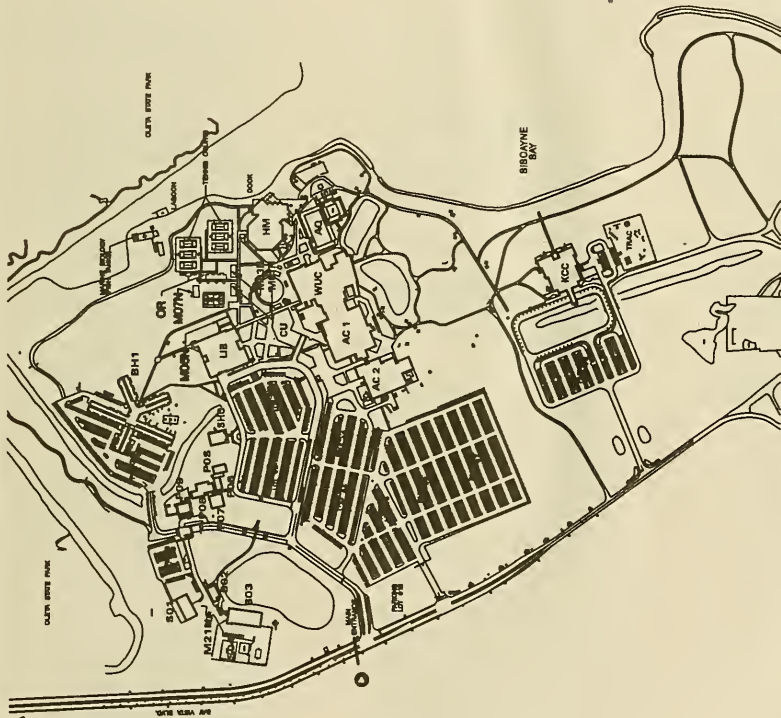
ENTRANCE

Scale: 1" = 600'



To Biscayne Blvd. ▲
Via NE 151 Street

CITY OF
NORTH MIAMI

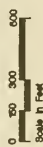


AC1	ACADEMIC ONE	NM	HOSPITALITY MANAGEMENT	M03N	NM TRAILER 3	P06	PDC - HRS PRACTICE CENTER	S02	PUBLIC SAFETY
AC2	ACADEMIC TWO	KCC	ROZ and CAL KOVENS CONFERENCE CENTER	M06N	NM TRAILER 6	P07	PDC - HRS CLASSROOM	S03	PHYSICAL PLANT
AQ	AQUATIC CENTER	LIB	THE LIBRARY	M21N	NM TRAILER 21	P08	PDC - HRS ADMINISTRATION	S04	GROUNDS
BH1	BAY VISTA HOUSING	M01N	NM TRAILER 1	OR	OUTDOOR RECREATION	P09	WELFARE CENTER	SHC	STUDENT HEALTH CLINIC
CU	CENTRAL UTILITIES	M02N	HOLCAUST DOCUMENTATION & EDUCATION CENTER	P08	EDUCATION CENTER	S01	CENTRAL RECEIVING	WUC	WOLFE UNIVERSITY CENTER

● ENTRANCE

FLORIDA INTERNATIONAL UNIVERSITY
BISCAYNE BAY CAMPUS

SEPTEMBER 27, 2000



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FLORIDA INTERNATIONAL UNIVERSITY

University Park

Miami, Florida 33199

Biscayne Bay Campus

North Miami, Florida 33181

Broward Center

at Broward Community College

Liberal Arts Building

2912 College Avenue

Davie, Florida 33314

University Tower

220 SE 2nd Avenue

Room 822

Fort Lauderdale, Florida 33301